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ABSTRACT

The purpose of the planning study was to examine the career education needs of the Des Moines Area Community College District (DMACC), to develop a plan and timetable for implementing career education services for the district, and to present a study model to be used by local schools in assessing district needs. Analyses were made of the general population characteristics, the public and community college curriculums, enrollment trends, and financial resources. Tables display these data by county. Surveys of county high school students, administrators, and women yielded data addressed to a wide variety of needs assessment factors, such as special needs identification, manpower needs, student aspirations, student interests, and the needs of women. Assessment of the data resulted in the formation of a five-year plan for the integration of career education throughout the area district. The feasibility study, by blending needs assessment and resource variables, present a model for conducting a planning study. Appendixes include a project abstract, listings of the advisory committee personnel, the Area 11 school districts by counties, and schools participating in the student survey and number of respondents. Samples of the survey instruments and a brief description of a mobile career exploration center project are also appended. (NJ)

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NEEDS FOR INTEGRATING CAREER EDUCATION SERVICES WITHIN THE DES MOINES AREA COMMUNITY COLLEGE DISTRICT

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DES MOINES AREA COMMUNITY COLLEGE

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NEEDS FOR INTEGRATING CAREER EDUCATION SERVICES WITHIN THE DES MOINES AREA COMMUNITY COLLEGE DISTRICT

Ron McClurg, Research Analyst

DES MOINES AREA COMMUNITY COLLEGE

Ankeny - Boone - Carroll

Iowa

March 1975

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CHAPTER ONE

INTRODUCTION

The Des Moines Area Community College

The Des Moines Area Community College (DMACC) was authorized under provisions of Chapter 280A of the Code of Iowa and was officially founded in May, 1966. The college district includes all of the public school districts located in the following eleven counties: Audubon, Boone, Carroll, Dallas, Guthrie, Jasper, Madison, Marion, Polk, Story, and Warren. Land area included within the district is 6,436 square miles. Approximately one-fifth of the state's population live in the college district. Eight other colleges and universities within the merged area offer post-high school education.

Career education defined

Career education, as utilized in this study, is defined as a sequence of vocational development experiences, beginning in early childhood and continuing through adult life, that prepares individuals for present and future employment opportunities.

Semantically, the language describing career education will vary from author to author, however, the concept remains the same. That is, career education is a process of integrated learning experiences that meshes personal awareness of self and guided learning experiences with the world of work and the place in that world that each individual finds for himself.

As applied in this study, career education will incorporate those

levels of learning associated with secondary and post-secondary institutions which are vocational and/or technical in nature and which require less than a baccalaureate degree for initial occupational entry.

The "Needs for Integrating" Study

The purpose of this planning study was to examine the career education needs of the population of the merged Area XI District, to develop a plan and timetable for implementing career education services for the district, and to present a study model that can be utilized by local schools in assessing district needs.

The need for such a study evolved around the perplexing issue of just what role the Des Moines Area Community College should play in the development and implementation of career experiences for high school students, agencies, and other groups in its district.

DMACC has attempted, as a comprehensive community college, to provide services to its many faceted district through career, continuing, and general education (college-parallel) offerings. This study, however, was needed to develop a sense of direction and to propose a tentative plan of action to follow in evaluating educational program expansion or modification.

This study was sponsored by a grant from the Career Education Division, Department of Public Instruction, State of Iowa. The Department of Public Instruction provides a key leadership role in the development and implementation of career education in the state.

CHAPTER TWO

OBJECTIVES, RATIONALE, AND PROCEDURES

The general objectives of the study were:

(1) to assess high school students' interests and intents in career training and occupational placement.

(2) to compile an assessment of career education training resources and programs.

(3) to present a feasibility study approach for establishing career education (exploratory, preparatory, supplemental) opportunities in Iowa school districts.

(4) to provide input data needed for comprehensive career planning for Des Moines Area Community College and district school systems.

(5) to develop a plan of action for delivery of career education services to area residents.

Rationale

An underlying presumption within this study is that career education does in fact have significant and substantive value and provides an impact upon society and the world of work. Although educators have for years attempted unsuccessfully to define clearly the significant outputs of the educational process, some indicators of value are available for perusal.

As a case in point, consider the following data reported by the

Placement Office at the Des Moines Area Community College for Fiscal Year 1974.

Of the Career Education Division graduates who entered employment, 93% entered training related occupations while another 2% continued their education. A follow-up survey of the employers of those graduates reflected that over 89% were rated as average or above average in ability in the skill levels considered most important for job entry employment.

Thus, students who completed career education programs and who subsequently entered employment had experienced successfully the vocational development activities that were needed for job entry.

This output of education - the ability to enter the world of work at an average or better skill level as applied to an individual, or the ability to produce persons with job entry skills as applied to the institution - is but one conceptual factor in evaluating and thereby justifying the value and benefit of career education programming.

If career education is to exist, and if it supplies a viable productive output in the educational spectrum as we have assumed, then the implications for evaluating and examining instructional programs not having a career education component are clear.

Procedures

The process through which this project progressed was a multi-faceted one. In the initial stages, a Vocational Research Advisory Committee

was convened. Persons included represented school superintendents, principals, college administrative personnel, a school counselor, an Employment Service representative and a referral agency representative.

The advisory group established general directions for the project and provided continuing leadership in defining those areas of emphasis needed for project inclusion.

A review of available literature was conducted to search for relevant data which could contribute to the study. References to these materials are made within the text of the study report.

To obtain student contributions for the study, a survey document was developed for submission to each ninth, tenth, and eleventh grade student in the merged area district, less the Des Moines Independent District. The Des Moines system was excluded for two reasons. First, a similar survey had been conducted within the Des Moines district and school officials were cooperatively submitting copies of those findings. And, second, the Des Moines system includes a comprehensive, vocationally-oriented high school program for its students.

The survey was distributed to each of the 67 districts which were to be included in May, 1974. While the survey was being conducted, the Data Services Section at the college began writing a computational program to tabulate data obtained from the survey. Due to the large number of anticipated returns (approximately 13,000), several persons were employed on a contractual basis to convert the raw data to

a coded format for data processing. Coded data were submitted to Data Services in batches to distribute the voluminous keypunch requirement. Phone call follow-up contacts were made to each non-respondent school district.

A collection of report documents from numerous sources were screened, abstracted, and summarized to provide data for the report. Included were documents from the Department of Public Instruction (historical enrollment data, public school curriculum data, manpower-related information from the Career Education Needs Information System, and financial data), plus reports from other collegiate consortiums and Des Moines Area Community College staff sections.

To obtain data from another input sector, an administrator survey was developed and distributed to a randomly-selected sample of school superintendents and secondary principals. The opinionnaire was open-ended and thus permitted free-wheeling responses from those surveyed. Two mailings were utilized in this survey with a twelve day interval.

The final report, in draft copy format, was submitted to three college staff administrators for edit, review, and comments prior to final copy preparation.

CHAPTER THREE

DISTRICT RESOURCES

Introduction

This section of the report examines some of the many resources available for career planning. Major subsections include population characteristics, current educational systems and programs, and pertinent student data.

Population characteristics

The population characteristics for the DMACC district are summarized in the following tables.

TABLE 1. General Population Characteristics of Counties Within the DMACC District: Numbers of persons. (1)

County	1960 Census	1970 Census	Percent change 1960 to 1970	Percent of Natural Increase (2)
Audubon	10918	9595	-12.1	1.1
Boone	28059	26470	-5.6	0.5
Carroll	23431	22912	-2.2	3.7
Dallas	24133	26085	8.1	2.4
Guthrie	13607	12243	-10.0	0.8
Jasper	35282	35425	0.4	5.6
Madison	12295	11558	-6.0	2.1
Marion	25886	26352	1.8	4.3
Polk	266315	286101	7.4	9.1
Story	49329	62783	27.3	10.6
Warren	20829	27432	31.7	13.8
Merged Area	510.051	546,956	7.2	4.9
Iowa	2,758,829	2,825,041	2.4	3.5

(1) Source: 1970 Census of the Population
(2) Ratio by which birth rates exceed death rates

As can be seen from Table 1, general population growth in the DMACC district is three times that of the state as a whole. Even if every other variable were to remain unchanged, this positive population growth factor would serve as one indicator that the educational needs of the college district are on the increase.

A related factor, but one not totally influential in establishing the percentage change rate, is the population natural increase rate. This factor represents the ratio by which the birth rate exceeds the death rate. The three to one population growth ratio of the merged area to the State of Iowa is not equivalent to the natural increase rate comparison of the district to the state. This latter ratio is unaffected by migration as total population growth or decline would be. Even so, the college district's natural increase rate is 1.4 times that of the state ratio.

Economic Factors

Table 2 summarizes additional population characteristics of importance to this planning study.

Interpretation of data in Table 2 reveals that district and state non-worker/worker ratios are approximately equal. This ratio reflects the proportion of persons not in the labor force (including persons under 14 years of age) to persons 14 years old and over in the labor force. Labor force as used herein, does not include categories of persons such as students, housewives, and retired workers.

The implications that can be drawn from this data are that the outlying counties of the district have a higher non-worker/worker ratio than the counties closer to the Standard Metropolitan Statistical Area

TABLE 2. Economic Factors for the Area XI Population (1)

County	Non-worker/ Worker Ratio	Percent Unemployment	1970 Median Income Level	Percent with Income Below '70 Poverty Level
Audubon	1.61	2.1	$ 6567	14.8
Boone	1.55	3.5	8412	7.9
Carroll	1.70	3.3	7973	10.7
Dallas	1.39	1.4	9247	8.4
Guthrie	1.53	3.2	7362	9.9
Jasper	1.36	3.0	9361	7.7
Madison	1.50	1.4	7712	13.2
Marion	1.55	1.6	8267	10.8
Polk	1.24	2.8	10682	6.1
Story	1.28	3.4	9687	6.9
Warren	1.46	2.0	9958	6.7
Merged Area	1.47	2.5	8657	9.3
IOWA	1.46	3.5	9018	8.9

(1) From the 1970 Census of the Population

(SMSA) of Des Moines/Polk County. These extended district locations are prime zones for career programming expansion opportunities.

As of the 1970 Census, unemployment rates throughout the eleven county district varied from 1.4% in Dallas County to 3.5% in Boone County. The college district averaged 2.5% unemployment while the state figure was 3.5%. Today, the unemployment picture is much gloomier.

As of February, 1975, unemployment had increased from 3.5 percent in the State to a 5.9 percent level overall. Significant changes occurred in several counties, with Boone climbing from 3.5 to 5.4 percent, Dallas from 1.4 to 5.8 percent, Jasper from 3.0 to 9.8 percent, and Madison from 1.4 to 6.0 percent.

Unemployment reports do not tell a complete story, however. Such reports do not reflect that many persons who would like to have full-time employment have to be satisfied with part-time jobs, and they do not describe how many persons hold down two jobs. And, one of the major problems with an unemployment report is that it does not provide a distinction between employed and under-employed persons.

An important concern, especially for the rural areas, is that the majority of the unemployed are from seasonal, agricultural situations. Educational programming that can meet these persons' needs and provide alternatives to seasonal employment conditions is one goal for which the schools can strive.

The 1970 Median Income data reflect that a great variance exists within the district in median income levels. In general, median income is higher in geographic areas with higher population and more extensive industrial development than in the more sparsely populated, agricultural areas.

Another important economic factor relates to the number of wage earners with incomes below the poverty levels. The range of percentages within the district for incomes below the poverty level were from 6.1% in Polk County to 14.8% in Audubon County. An inverse re-

lationship existed between income level and percentage of incomes below 1970 poverty guidelines. The correlation of these two characteristics was a substantial -.521 coefficient.

Iowa's Veterans

Yet another population characteristic having implications for educational programming relates to the status of veterans. The information in Table 3 summarizes data concerning a potential group of educational consumers who have availability of funding for career program enrollment through the GI Bill provisions.

TABLE 3. Veterans' Status in Merged Area XI (1)

County	Percent of males who are veterans	Percent of veterans from Vietnam era
Audubon	36.1	10.3
Boone	39.4	16.8
Carroll	37.8	14.0
Dallas	43.9	12.3
Guthrie	38.9	8.6
Jasper	38.8	13.4
Madison	33.5	9.8
Marion	42.3	13.0
Polk	46.3	15.9
Story	28.2	21.4
Warren	40.1	14.9
Merged Area	38.7	13.7
IOWA	40.2	15.6

(1) Source: 1970 Census of the Population

U.S. Census data further indicates that of the Vietnam era veterans, 15.2% are from rural, non-farm areas and 13.8% are in rural farm locations.

Population/Economic Factor Summary

A summary of the general population characteristics section highlights the following factors that can be considered in long term planning:

1. The population of the DMACC district grew 7.2% during the 1960-70 decade while total state population grew only 2.4%.

2. The natural rate of increase, although generally declining, is still at a positive level, and for the district is nearly 1.5 times greater than for the state as a whole.

3. Counties outlying from the main campus location at Ankeny have higher non-worker/worker ratios than the close in metropolitan areas. (Thus, fewer workers must support more persons in those areas.)

4. Outlying counties are primarily rural, agricultural in nature. And, since agriculture may provide only seasonal employment in many situations, those who become unemployed during off-seasons are prime candidates for alternatives (through career education) that will remove the possibility of non-wage earning periods of time.

5. Being at, or below, poverty income levels faces many persons in the outlying areas.

6. Many Vietnam era veterans reside in the district and offer potential "new student" enrollment for extended programming options.

Present educational programming resources

Public school curriculum analysis

One basic question of importance addresses the issue of what is currently being taught. In order for well-founded planning to take place, this question must be thoroughly examined. A curriculum evaluation must occur to determine the status of the curriculum foundation prior to any re-modeling or building efforts of the educational endeavor.

Curriculum information supplied by the Department of Public Instruction was analyzed to describe current programming at the secondary school level. The data, presented by county in Tables 4 through 14, categorize and summarize individual courses (grades 9 through 12) into 13 basic curriculum areas. Table 15 is a composite summary of the merged area.

The first eight curriculum areas are those normally considered to be traditional courses for college bound youth. They are science, mathematics, fine arts, communications, physical education, foreign language, social sciences, and "other". The remaining five areas are classified as vocational in nature. They are trade and industrial, vocational agriculture, homemaking and human services, business education, and distributive education.

TABLE 4. Public School Curriculum Analysis - Audubon County (1)

Curriculum Area	Number of Courses	9-12 Enroll	% of Enroll Total	Mean Course Enrollment (2)
Science	8	338	6.4	42
Math	12	392	7.5	33
Fine Arts	16	473	8.9	30
Communications	14	823	15.6	59
P.E.	3	826	15.6	275
Foreign Language	7	83	1.6	12
Social Science	13	747	14.1	57
Other (3)	3	195	3.7	55
Sub-total	76	3877	73.4	51
Business Ed	16	547	10.4	34
Distributive Ed	-	-	-	-
Homemaking	15	416	7.9	28
Trade & Industrial	23	314	5.9	14
Vocational Ag	9	126	2.4	14
Sub-total	63	1403	26.6	22
Grand total	139	5280	100.0	38

School	Number of College Prep Offerings	Number Voc. Offerings	9-12 FTEE	#9-12 Units	Ave. Course Enrollment
Audubon	44	32	3858	64.0	51
Exira	32	31	1422	49.5	23

(1) Source: DPI - Public Curriculum for 1973-74
(2) Computed by dividing FTEE by number of courses
(3) Includes Driver Education, cadet teaching, etc.

TABLE 5. Public School Curriculum Analysis - Boone County (1)

Curriculum Area	Number of Courses	9-12 Enroll	% of Enroll Total	Mean Course Enrollment (2)
Science	34	1027	8.3	30
Math	36	1069	8.6	30
Fine Arts	50	1337	10.8	27
Communications	39	1850	14.9	47
P.E.	7	1410	11.4	201
Foreign Language	18	310	2.3	17
Social Science	39	2087	16.8	54
Other (3)	6	212	1.7	35
Sub-total	229	9302	74.8	41
Business Ed	37	1261	10.1	34
Distributive Ed	-	-	-	-
Homemaking	28	766	6.1	27
Trade & Industrial	47	1042	8.4	22
Vocational Ag	4	71	0.6	18
Sub-total	116	3140	25.2	27
Grand Total	345	12442	100.0	36

School	Number of College Prep Offerings	Number Voc. Offerings	9-12 FTEE	#9-12 Units	Ave. Course Enrollment
Boone	52	29	6110	69.13	75
Grand Community	45	19	987	33.0	15
Madrid	36	16	1618	43.5	31
Ogden	61	30	2371	63.5	26
United Community	35	23	1410	40.0	24

(1) Source: DPI - Public Curriculum for 1973-74
(2) Computed by dividing FTEE by number of courses
(3) Includes Driver Education, cadet teaching, etc.

TABLE 6. Public School Curriculum Analysis - Carroll County (1)

Curriculum Area	Number of Courses	9-12 Enroll	% of Enroll Total	Mean Course Enrollment (2)
Science	25	644	9.6	26
Math	28	656	9.6	23
Fine Arts	36	981	14.6	27
Communications	27	730	10.9	27
P.E.	4	1019	15.2	255
Foreign Language	10	129	1.9	13
Social Science	33	977	14.5	30
Other (3)	2	60	0.9	30
Sub-total	165	5196	77.4	31
Business Ed	29	559	8.3	19
Distributive Ed	-	-	-	-
Homemaking	19	293	4.3	15
Trade & Industrial	29	528	7.9	18
Vocational Ag	12	139	2.1	12
Sub-total	89	1519	22.6	17
Grand total	254	6715	100.0	26

School	Number of College Prep Offerings	Number Voc. Offerings	9-12 FTEE	#9-12 Units	Ave.Course Enrollment
Carroll	42	14	1842	46.75	33
Coon Rapids	40	16	1510	54.50	38
Glidden-Ralston	44	32	1631	53.25	21
Manning	39	27	1732	49.50	26

(1) Source: DPI - Public Curriculum for 1973-74
(2) Computed by dividing FTEE by number of courses
(3) Includes Driver Education, cadet teaching, etc.

TABLE 7. Public School Curriculum Analysis - Dallas County (1)

Curriculum Area	Number of Courses	9-12 Enroll	% of Enroll Total	Mean Course Enrollment (2)
Science	40	1290	8.6	32
Math	53	1178	7.8	22
Fine Arts	76	1760	11.8	23
Communications	68	2255	15.0	33
P.E.	7	1471	9.8	210
Foreign Language	26	246	1.6	9
Social Science	55	2316	15.4	42
Other (3)	8	439	2.9	55
Sub-total	333	10,963	72.9	33
Business Ed	61	1510	10.0	25
Distributive Ed	6	170	1.1	28
Homemaking	48	914	6.0	19
Trade & Industrial	74	1457	9.8	20
Vocational Ag	4	26	0.1	7
Sub-total	193	4077	27.1	21
Grand total	526	15,040	100.0	29

School	Number of College Prep Offerings	Number Voc. Offerings	9-12 FTEE	#9-12 Units	Ave. Course Enrollment
Adel	47	34	2884	62.50	36
Central Dallas	33	14	877	43.00	19
Dallas Community	41	24	1595	53.50	25
Dexfield	34	22	1188	43.50	21
Perry	58	42	4027	75.38	40
Van Meter	29	14	791	37.50	18
Waukee	40	24	1739	50.00	27
Woodward-Granger	51	19	1939	49.50	28

(1) Source: DPI - Public Curriculum for 1973-74
(2) Computed by dividing FTEE by number of courses
(3) Includes Driver Education, cadet teaching, etc.

TABLE 8. Public School Curriculum Analysis - Guthrie County (1)

Curriculum Area	Number of Courses	9-12 Enroll	% of Enroll Total	Mean Course Enrollment (2)
Science	35	743	8.2	21
Math	38	734	8.1	19
Fine Arts	47	1427	15.7	30
Communications	39	1182	13.0	30
P.E.	8	1315	14.5	164
Foreign Language	10	105	1.2	11
Social Science	42	1357	14.9	32
Other (3)	5	96	1.0	19
Sub-total	224	6959	76.6	31
Business Ed	44	795	8.8	18
Distributive Ed	5	75	0.8	15
Homemaking	30	609	6.8	20
Trade & Industrial	33	487	5.3	15
Vocational Ag	13	157	1.7	12
Sub-total	125	2123	23.4	17
Grand total	349	9082	100.0	26

School	Number of College Prep Offerings	Number Voc. Offerings	9-12 FTEE	#9-12 Units	Ave. Course Enrollment
Adair-Casey	43	25	1846	52.25	27
Bayard	25	13	606	32.75	16
Guthrie Center	33	16	1693	42.50	35
Panora-Linden	55	34	2055	53.56	23
Stuart-Menlo	35	19	1899	46.50	35
YJB	33	18	983	39.25	19

(1) Source: DPI - Public Curriculum for 1973-74
(2) Computed by dividing FTEE by number of courses
(3) Includes Driver Education, cadet teaching, etc.

TABLE 9. Public School Curriculum Analysis - Jasper County (1)

Curriculum Area	Number of Courses	9-12 Enroll	% of Enroll Total	Mean Course Enrollment (2)
Science	34	1558	8.7	46
Math	42	1517	8.4	36
Fine Arts	52	2074	11.5	40
Communications	53	2877	16.0	54
P.E.	8	2645	14.7	330
Foreign Language	20	308	1.7	15
Social Science	51	2419	13.6	47
Other (3)	6	322	1.8	54
Sub-total	266	13,720	76.4	52
Business Ed	43	1425	7.9	33
Distributive Ed	2	139	0.8	70
Homemaking	38	1091	6.1	29
Trade & Industrial	41	1268	7.2	31
Vocational Ag	19	315	1.8	17
Sub-total	143	4238	23.6	30
Grand total	409	17,958	100.0	44

School	Number of College Prep Offerings	Number Voc. Offerings	9-12 FTEE	#9-12 Units	Ave. Course Enrollment
Baxter	31	13	907	33.50	21
Colfax	38	21	1920	45.50	33
Lynnville Sully	34	15	1705	44.50	35
Mingo	30	9	710	36.00	18
New Monroe	33	22	1431	49.25	26
Newton	68	45	10,136	93.50	90
Prairie City	32	22	1149	46.50	21

(1) Source: DPI - Public Curriculum for 1973-74
(2) Computed by dividing FTEE by number of courses
(3) Includes Driver Education, cadet teaching, etc.

TABLE 10. Public School Curriculum Analysis - Madison County (1)

Curriculum Area	Number of Courses	9-12 Enroll	% of Enroll Total	Mean Course Enrollment (2)
Science	14	547	7.3	39
Math	16	404	5.4	25
Fine Arts	25	1193	16.0	48
Communications	27	1222	16.4	45
P.E.	3	823	11.0	274
Foreign Language	9	214	2.9	24
Social Science	21	821	11.0	39
Other (3)	2	56	0.8	28
Sub-total	117	5280	70.8	41
Business Ed	31	818	11.0	26
Distributive Ed	1	14	0.2	14
Homemaking	13	355	4.8	27
Trade & Industrial	24	700	9.4	29
Vocational Ag	19	286	3.8	15
Sub-total	88	2173	29.2	25
Grand total	205	7453	100.0	34

School	Number of College Prep Offerings	Number Voc. Offerings	9-12 FTEE	#9-12 Units	Ave. Course Enrollment
Earlham	34	28	1456	50.00	23
Interstate 35	39	28	2293	49.50	34
Winterset	44	32	3704	57.65	49

(1) Source: DPI - Public Curriculum for 1973-74

(2) Computed by dividing FTEE by number of courses

(3) Includes Driver Education, cadet teaching, etc.

TABLE 11. Public School Curriculum Analysis - Marion County (1)

Curriculum Area	Number of Courses	9-12 Enroll	% of Enroll Total	Mean Course Enrollment (2)
Science	27	1252	10.3	46
Math	28	1006	8.3	36
Fine Arts	38	1133	9.3	30
Communications	35	2124	17.5	61
P.E.	7	2146	17.7	307
Foreign Language	15	204	1.7	14
Social Science	30	1524	12.5	51
Other (3)	3	113	0.9	38
Sub-total	183	9502	78.2	52
Business Ed	42	1006	8.3	24
Distributive Ed	-	-	-	-
Homemaking	31	806	6.7	26
Trade & Industrial	31	602	5.0	19
Vocational Ag	16	236	1.8	15
Sub-total	120	2650	21.8	22
Grand total	303	12,152	100.0	40

School	Number of College Prep Offerings	Number Voc. Offerings	9-12 FTEE	#9-12 Units	Ave. Course Enrollment
Knoxville	55	33	6039	65.30	69
Melcher-Dallas	32	15	1016	43.00	22
Pella	33	23	2822	49.25	50
Pleasantville	30	32	980	48.75	16
Twin Cedars	33	17	1035	48.00	21

(1) Source: DPI - Public Curriculum for 1973-74
(2) Computed by dividing FTEE by number of courses
(3) Includes Driver Education, cadet teaching, etc.

TABLE 12. Public School Curriculum Analysis - Polk County (1)(2)

Curriculum Area	Number of Courses	9-12 Enroll	% of Enroll Total	Mean Course Enrollment (3)
Science	40	2228	7.9	56
Math	51	2175	7.8	43
Fine Arts	90	3990	14.2	44
Communications	59	3538	12.6	60
P.E.	7	4129	14.7	590
Foreign Language	26	534	1.9	21
Social Science	70	5143	18.4	73
Other (4)	8	252	0.9	32
Sub-total	351	21,989	78.4	63
Business Ed	65	2243	8.0	35
Distributive Ed	6	223	0.8	37
Homemaking	45	1633	5.8	36
Trade & Industrial	70	1850	6.6	26
Vocational Ag	9	118	0.4	13
Sub-total	195	6067	21.6	31
Grand total	546	28,056	100.0	51

School	Number of College Prep Offerings	Number Voc. Offerings	9-12 FTEE	#9-12 Units	Ave. Course Enrollment
Ankeny	62	42	8052	74.50	77
Bondurant-Farrar	54	20	1658	53.50	22
Johnston	45	19	2330	53.50	36
North Polk	33	21	1738	40.25	32
Saydel	90	49	7181	81.24	52
Southeast Polk	67	44	7097	95.00	64

(1) Source: DPI - Public Curriculum for 1973-74
(2) Excludes metropolitan area schools of Des Moines, Urbandale, Valley
(3) Computed by dividing FTEE by number of courses
(4) Includes Driver Education, cadet teaching, etc.

TABLE 12(a). Public School Curriculum Analysis - Polk County (Metropolitan area schools only) (1)

Curriculum Area	Number of Courses	9-12 Enroll	% of Enroll Total	Mean Course Enrollment (2)
Science	38	6803	6.5	179
Math	31	8870	8.5	286
Fine Arts	87	11731	11.3	135
Communications	63	15253	14.6	242
P.E.	6	6831	6.6	1139
Foreign Language	42	2944	2.8	70
Social Science	47	20593	19.8	438
Other (3)	6	2693	2.6	449
Sub-total	320	75,718	72.7	237
Business Ed	62	12,798	12.3	206
Distributive Ed	8	998	0.9	125
Homemaking	28	4740	4.6	169
Trade & Industrial	78	9863	9.5	126
Vocational Ag	-	-	-	-
Sub-total	176	28,399	27.3	161
Grand total	496	104,117	100.0	210

School	Number of College Prep Offerings	Number Voc. Offerings	9-12 FTEE	#9-12 Units	Ave. Course Enrollment
Des Moines Ind.	168	108	80,216	293.00	291
Urbandale	65	28	7403	72.50	80
Valley (WDM)	87	40	16,498	88.50	130

(1) Source: DPI - Public Curriculum for 1973-74
(2) Computed by dividing FTEE by number of courses
(3) Includes Driver Education, cadet teaching, etc.

TABLE 13. Public School Curriculum Analysis - Story County (1)

Curriculum Area	Number of Courses	9-12 Enroll	% of Enroll Total	Mean Course Enrollment (3)
Science	46	2360	9.4	51
Math	56	2412	9.6	43
Fine Arts	87	3310	13.2	38
Communications	70	3040	12.1	43
P.E.	9	4281	17.1	476
Foreign Language	31	465	1.9	15
Social Science	57	3435	13.7	60
Other (3)	8	419	1.7	52
Sub-total	364	19,722	78.7	54
Business Ed	72	1882	7.5	26
Distributive Ed	4	108	0.4	27
Homemaking	59	1322	5.3	22
Trade & Industrial	69	1831	7.4	27
Vocational Ag	14	176	0.7	13
Sub total	218	5319	21.3	24
Grand total	582	25,041	100.0	43

School	Number of College Prep Offerings	Number Voc. Offerings	9-12 FTEE	#9-12 Units	Ave. Course Enrollment
Ames	68	46	11,403	79.00	97
Ballard	39	21	2,274	43.41	38
Collins	23	11	572	30.50	17
Colo	38	25	934	41.50	15
Gilbert	41	22	1,309	46.50	21
Maxwell	38	18	1,100	39.00	20
Nesco	25	15	878	37.75	22
Nevada	46	28	3,990	58.00	54
Roland-Story	46	32	2,941	52.25	38

(1) Source: DPI - Public Curriculum for 1973-74
(2) Computed by dividing FTEE by number of courses
(3) Includes Driver Education, cadet teaching, etc.

TABLE 14. Public School Curriculum Analysis - Warren County (1)

Curriculum Area	Number of Courses	9-12 Enroll	% of Enroll Total	Mean Course Enrollment (3)
Science	28	1634	10.6	58
Math	3[illegible]	1368	8.9	41
Fine Arts	54	2141	13.9	40
Communications	40	2079	13.5	52
P.E.	7	2304	15.0	329
Foreign Language	18	330	2.1	18
Social Science	31	2512	16.3	81
Other (3)	3	95	0.6	32
Sub-total	214	12,468	80.9	58
Business Ed	41	1026	6.7	25
Distributive Ed	2	28	0.2	14
Homemaking	26	808	5.2	31
Trade & Industrial	30	947	6.2	32
Vocational Ag	8	128	0.8	16
Sub-total	107	2937	19.1	27
Grand total	321	15,405	100.0	48

School	Number of College Prep Offerings	Number Voc. Offerings	9-12 FTEE	#9-12 Units	Ave. Course Enrollment
Carlisle	58	17	3173	60.00	42
Indianola	55	30	5682	66.25	67
Martens.- St. M	31	18	2867	37.00	59
Norwalk	42	28	2142	49.50	31
S.E. Warren	28	14	1536	40.50	37

(1) Source: DPI - Public Curriculum for 1973-74
(2) Computed by dividing FTEE by number of courses
(3) Includes Driver Education, cadet teaching

TABLE 15. Public School Curriculum Analysis - DMACC
District Summary of Tables 4 through 14

County	College Prep Courses			Voc. Ed Courses		
	#	% Enroll.	Mean Class Size	#	% Enroll.	Mean Class Size
Audubon	76	73.4	51	63	26.6	22
Boone	229	74.8	41	116	25.2	27
Carroll	165	77.4	31	89	22.6	17
Dallas	333	72.9	33	193	27.1	21
Guthrie	224	76.6	31	125	23.4	17
Jasper	266	76.4	52	143	23.6	30
Madison	117	70.8	41	88	29.2	25
Marion	183	78.2	52	120	21.8	22
Polk	351	78.4	63	195	21,6	31
Polk (a)	320	72.7	237	176	27.3	161
Story	364	78.7	54	218	21.3	24
Warren	214	80.9	58	107	19.1	27
TOTAL	2842	73.3	68.5	1633	26.7	43

(a) Includes the following metropolitan area schools: Des Moines Independent, Urbandale, and Valley (West Des Moines)

The data in Tables 4 through 14 were abstracted from a 1974 DPI report obtained from their Management Information Section, and reflect the emphasis to which each public school and each county offers curricula within either the "traditional" college preparatory configuration or within a vocational education framework.

Summary points of note follow:

1. Approximately three-fourths of the public curriculum courses offered are traditionally college preparatory in nature. For the college district, 73.3% are college prep and 26.7% are vocational.

2. Distributive education is by far the smallest area of vocational enrollment; and, in many schools no D.E. program exists at all.

3. More courses are offered (4475) than are units of credit (3541.67). This indicates that flexibility of scheduling and the probability of not only single semester courses, but also mini-courses for credit do exist.

This study does not presuppose the future of some of the smaller school district curricula. It does appear, however, that small enrollment in some of the curriculum areas, traditional as well as vocational, may be an indication of forced, future curriculum revision. Those schools that cannot justify extremely high per-pupil program costs due to light enrollment may have to consider the possibility of joint inter-school curricula efforts if continued program offerings are anticipated.

Des Moines Area Community College Curriculum Analysis

The enabling legislation authorizing the establishment of Iowa community colleges (such as DMACC) requires, but does limit, the following educational functions:

1. Two years of arts and science college work including pre-professional education.
2. Vocational and technical training.
3. Programs for in-service training and re-training of workers.
4. Programs for high school completion for students of post-high school age.
5. Programs for all students of high school age who may best serve themselves by enrolling for vocational and technical training while still enrolled in high school.
6. Student personnel services.
7. Community services.
8. Vocational education for persons with academic, socio-economic, or other handicaps which could prevent success in regular vocational education programs.
9. Training, re-training, and necessary preparation for productive employment of all citizens.
10. Vocational and technical training for persons who are not enrolled in high school and who have not completed high school.

The Des Moines Area Community College has made rapid progress toward achieving each of these mandated objectives. In Fiscal Year 1974, over 50 vocational-technical programs were offered with both preparatory and supplemental training options available. Over 340 separate course offerings were available from 36 different fields for students

enrolled in the arts and science division. Adult and continuing education offerings were available at more than 80 locations throughout the college district.

This diversity of offerings are available to persons on a full or part-time basis, during the day or at night, and at several major locations throughout the district.

When curriculum offerings are developed, a number of variables are evaluated as input factors. Included are student demand, manpower needs surveys, and institutional support capacities. The processes thus involved are discussed more fully in a subsequent section.

The curriculum program offerings at the DMACC are sensitive to the needs of the labor market. Each course or program developed is initiated only after application of a thorough planning process. Included in the development process is the appointment and continued utilization of advisory committees. These committees are composed of both educators and lay persons who have insight needed in program development to best serve the mutual needs of both employers and students. Programs are developed that will provide educational services that permit enrollees to successfully enter the work force and subsequently make normal career growth. Supplemental career course offerings insure that workers can continue to receive occupational upgrading and career advancement training.

Student/potential Students as Resources

The 1970 Iowa Census of the population reflected that over 56% of the 3 to 34 year age group were enrolled in "school". Within that

cluster of the Iowa population, 62.2% of the 18 and 19 year olds, 37.1% of the 20 and 21 year olds, and 14.3% of the 22 to 24 year olds were thus engaged.

Educational Background of Iowans

1. Of the total, 59% of those over 25 had completed 4 years or more of high school and 9.1% had completed 4 or more years of college, but 31.9% had less than a high school education.

2. Of the 18 to 24 age group, 73.3% had 4 or more years of high school and 5.5% had 4 or more years of college, but 21.2% had less than a high school education.

3. Of the male population, 18 years and older, only 20.6% had completed a vocational training program. Females in the same age classification had a 17.3% vocational program completion rate. (Vocational training was defined as completion of a formal high school training program, apprenticeship, school of business, school of nursing, trade school, technical institute, Armed Forces schools or Job Corps Training.) When combined with those who had completed a "regular" college curriculum, only one-third of the Iowans over 18 had completed some type of formal vocational training as of the 1970 Census.

High School Students' Vocational History

Exposure to the concept of career awareness and career education and exploration certainly should not begin with a single high school or post-high school experience. One segment of the extensive student

survey conducted as a part of this project (see Appendix for sample survey form) was to examine the history of high school students' involvement in vocational education. The purpose of such an investigation was two-fold:

1. It served as an indicator of willingness of students to make efforts while enrolled in high school to become involved in vocational learning experiences in specific occupational areas.
2. Such a study provided an indication of how well students were willing to support vocational learning experiences within the school district curricula.

The student survey was conducted during May of 1974 and included ninth, tenth, and eleventh grade students enrolled in both public and private schools of the merged area. The data are not truly representative from the standpoint that no twelfth grade students were included, and many schools make vocational education more available to seniors than other grade levels. Of the 68 schools in the college district, 56 participated in the student survey.

Tables 16 through 26 summarize the findings of the student history portion of the student survey.

TABLE 16. Percent of students by school reporting vocational education experience - Audubon County

School	Grade 9	10	11	Mean for school
Audubon	26.1	43.7	34.3	33.2
Exira	(1)	(1)	(1)	(1)

(1) Did not participate

TABLE 17. Percent of students by school reporting vocational education experience - Boone County

School	Grade 9	10	11	Mean for school
Boone	36.8	42.0	55.9	46.5
Grand Community	5.6	22.8	44.0	26.2
Madrid	48.9	59.8	53.0	53.4
Ogden	49.4	52.3	9.5	39.9
United Community	77.8	65.9	93.9	80.4

TABLE 18. Percent of students by school reporting vocational education experience - Carroll County

School	Grade 9	10	11	Mean for school
Carroll	15.7	34.8	46.6	34.7
Carroll Kuemper	14.9	22.6	46.3	27.1
Coon Rapids	75.0	23.1	72.0	62.8
Glidden-Ralston	(1)	(1)	(1)	(1)
Manning	(1)	(1)	(1)	(1)
St. Bernards (Breda)	2.8	10.6	14.3	8.5

(1) Did not participate

TABLE 19. Percent of students by school reporting vocational education experience - Dallas County

School	Grade 9	10	11	Mean for School
Adel	58.4	77.4	41.5	62.9
Central Dallas	(1)	(1)	(1)	(1)
Dallas Community	61.2	36.8	58.0	51.2
Dexfield	91.0	89.9	84.0	88.7
Perry	22.5	31.1	49.2	32.8
Van Meter	40.0	65.8	77.0	60.7
Waukee	(2)	32.3	23.5	28.4
Woodward-Granger	(1)	(1)	(1)	(1)

(1) Did not participate
(2) Data not collected from this class group

TABLE 20. Percent of students by school reporting vocational education experience - Guthrie County

School	Grade 9	10	11	Mean for School
Adair-Casey	80.0	65.2	83.4	76.6
Bayard	84.0	78.2	91.2	85.0
Guthrie Center	44.5	78.1	(1)	67.8
Panora Linden	60.6	48.3	39.5	51.8
Stuart-Menlo	10.3	73.7	48.2	47.6
Y-J-B	5.6	40.0	72.8	38.3

(1) Data not collected from this class group

TABLE 21. Percent of students by school reporting vocational education experience - Jasper County

School	Grade 9	10	11	Mean for School
Baxter	37.3	39.3	39.3	38.7
Colfax	15.0	28.9	24.0	21.2
Lynnville-Sully	61.0	(1)	76.3	67.4
Mingo	(2)	(2)	(2)	(2)
New Monroe	43.5	55.6	56.0	51.1
Newton	33.8	38.1	40.6	37.3
Prairie City	2.2	10.9	37.3	17.4

(1) Data not collected for this class group
(2) Did not participate

TABLE 22. Percent of students by school reporting vocational education experiences - Madison County

School	Grade 9	10	11	Mean for School
Earlham	79.2	56.6	81.7	72.8
I-35	(1)	71.5	72.6	72.3
Winterset	(1)	46.1	58.8	52.8

(1) Data not collected from this class group

TABLE 23. Percent of students by school reporting vocational education experience - Marion County

School	Grade 9	10	11	Mean for School
Knoxville	56.2	33.4	28.3	39.8
Melcher-Dallas	45.5	77.0	64.2	66.5
Pella	74.7	74.2	80.0	76.4
Pella Christian	69.6	76.3	74.5	74.1
Pleasantville	58.3	62.8	57.3	59.7
Twin Cedars	22.5	34.4	44.9	33.9

TABLE 24. Percent of students by school reporting vocational education experience - Polk County

School	Grade 9	10	11	Mean for School
Ankeny	10.1	41.8	50.0	29.5
Bondurant-Farrar	40.0	39.4	43.4	41.0
Des Moines	(1)	(1)	(1)	(1)
Dowling	21.3	26.4	27.6	25.1
Johnston	(2)	(2)	(2)	(2)
North Polk	56.7	42.2	60.0	53.2
Saydel	53.6	41.6	50.0	49.6
Southeast Polk	26.4	(3)	(3)	26.4
Urbandale	20.4	20.2	24.7	22.0
Valley	19.1	25.9	30.9	25.8

(1) Was not included within survey

(2) Did not participate

(3) Partial participation by this school

TABLE 25. Percent of students by school reporting vocational education experience - Story County

School	Grade 9	10	11	Mean for School
Ames	(1)	(1)	(1)	(1)
Ballard	(1)	(1)	(1)	(1)
Collins	(1)	(1)	(1)	(1)
Colo	50.0	(2)	42.9	46.7
Gilbert	(1)	(1)	(1)	(1)
Maxwell	6.7	34.4	56.6	35.8
Nesco	(1)	(1)	(1)	(1)
Nevada	10.6	25.3	31.9	20.5
Oak Park Academy	(2)	(2)	87.3	87.3
Roland-Story	42.7	71.8	79.4	65.3

(1) Did not participate
(2) Data not collected for this class group

TABLE 26. Percent of students by school reporting vocational educational experience - Warren County

School	Grade 9	10	11	Mean for School
Carlisle	27.6	43.5	39.6	34.3
Indianola	22.2	40.9	54.7	39.1
Martensdale-St. Mary's	56.3	50.0	61.6	57.2
Norwalk	(1)	(1)	(1)	(1)
Southeast Warren	(1)	(1)	(1)	(1)

(1) Did not participate

School Enrollment Data

The greatest and most valuable resource with which the educational enterprise deals is obviously the human factor, the consumer of educational resources. The status of enrollment levels, present and predicted, is another critical planning factor that must face evaluation prior to curriculum modification.

In those districts where a decline in student numbers is occurring, the character of the curriculum may of necessity face alteration simply because of the decreased student demand for selected courses of study. On the other hand, those districts anticipating growth, or at least stability of student numbers, may find curriculum revision necessary due to changes in student demand emphasis. In either case, the educational unit must carefully analyze the student population as a part of the planning process.

The trend in recent years for the preponderant number of school districts is toward declining numbers in the student population. Even though total student numbers are on the downswing, a growing emphasis on career education is emerging in the school districts within the Merged Area.

Responses to the Administrator Survey (discussed in Chapter Four) reflect a much greater demand for joint community college/local school interaction in program development. Efforts of several local districts to meet changing student population needs is reviewed in Chapter Seven.

Analysis of several factors, including enrollment trends, student interests, and emerging curriculum needs reflect that perhaps com-

pensatory trade-off situations exist in many districts.

The trade-off comes into being where diminishing numbers of students are creating curriculum reform requirements as opposed to needed curriculum expansion to meet the changing focus of the educational process in preparatory career education program development.

Evaluation of the enrollment picture serves as a vehicle to construct one index of the emerging needs of the district in planning decision efforts.

Anaylsis of enrollment trends is presented by county in Tables 27 through 37. Each table is organized into three sections.

Part A is a six year history of total opening fall school enrollment for each grade from 1969 through 1974.

Part B contains computed survival ratios. A survival ratio is the proportion of students that continue to the next higher grade level in the following school year. A simplification of the computation follows:

> Given School "X": 152 students enrolled in fourth grade during 1973-74; 149 students enrolled in fifth grade in the fall of the 1974-75 school year. The survival ratio is obtained by dividing the former enrollment figure by the latter. Thus, $\frac{149}{152}$ = survival ratio of .9803.
>
> Application of the survival ratio of .9803 to the known 1974-75 figure (149) yields a predicted 1975-76 sixth grade enrollment figure of 146 students.

In order to compensate for migration, attrition, and other factors

affecting enrollment, a mean survival ratio (MSR) is computed. The MSR in this study was based upon an averaging of the survival ratios over a five year period.

Part C consists of the enrollment projection by grade for each county. This data was computed by application of the MSR to known base-year data (Fall 1974-75 enrollment). The kindergarten class data for each year 1975 through 1979 was obtained from the 1974 School Census Report obtained from the Department of Public Instruction.

TABLE 27. SCHOOL ENROLLMENT BY COUNTY 1969-70 - 1979-80 - ACTUAL AND PROJECTED - AUDUBON COUNTY

A. ENROLLMENT HISTORY

YEAR	K	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
69-70	166	170	166	172	176	177	182	183	191	169	209	205	189	2355
70-71	159	155	177	168	175	180	179	185	182	192	164	206	205	2267
71-72	131	144	145	172	158	172	178	177	178	186	190	158	193	2182
72-73	123	146	143	143	168	159	168	175	173	181	179	175	157	2090
73-74	120	126	141	137	142	164	162	168	173	175	176	172	169	2025
74-75	114	123	128	139	142	147	160	165	173	171	173	173	161	1969

B. SURVIVAL RATIOS

YEAR	K-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12
70-71	.9337	1.0411	1.0120	1.0174	1.0227	1.0112	1.0164	.9945	1.0052	.9704	.9856	1.0000
71-72	.9056	.9354	.9717	.9404	1.0174	.9888	.9888	.9621	1.0219	.9895	.9634	.9368
72-73	1.1145	.9930	.9862	.9767	1.0063	.9767	.9831	.9774	1.0168	.9623	.9210	.9936
73-74	1.0243	1.0354	.9580	1.0070	.9761	1.0188	1.0000	.9885	1.0115	.9723	.9608	.9657
74-75	1.0250	1.0158	.9858	1.0364	1.0352	.9756	1.0185	1.0297	.9884	.9885	.9829	.9360
MEAN	1.0006	1.0041	.9827	.9955	1.0115	.9942	1.0013	.9904	1.0087	.9766	.9627	.9664

C. ENROLLMENT PROJECTION

YEAR	K	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
74-75	114	123	128	139	142	147	160	165	173	171	173	173	161	1969
75-76	98	114	124	126	138	144	146	160	163	175	167	167	167	1890
76-77	86	98	115	123	125	140	143	146	158	164	171	161	161	1791
77-78	67	86	99	113	122	126	139	143	145	159	160	165	156	1680
78-79	75	67	86	97	112	123	125	139	142	146	155	154	159	1580
79-80	65	75	67	85	97	113	122	125	138	143	143	149	149	1471

TABLE 28. SCHOOL ENROLLMENT BY COUNTY, 1969-70 -- 1979-80, ACTUAL AND PROJECTED - BOONE COUNTY

A. ENROLLMENT HISTORY

YEAR	K	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
69-70	414	399	407	430	424	418	397	414	409	428	432	404	420	5396
70-71	363	400	401	405	436	413	431	413	419	444	453	449	412	5439
71-72	356	335	398	383	399	440	422	444	430	452	436	456	420	5371
72-73	356	340	357	403	380	418	443	425	459	442	443	425	445	5336
73-74	358	341	328	338	389	387	407	446	417	481	446	416	398	5152
74-75	341	333	321	317	332	387	378	416	439	429	466	413	402	4974

B. SURVIVAL RATIOS

YEAR	K-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12
70-71	.9661	1.0050	.9950	1.0139	.9740	1.0311	1.0403	1.0120	1.0855	1.0584	1.0393	1.0198
71-72	.9228	.9950	.9551	.9851	1.0091	1.0217	1.0301	1.0411	1.0787	.9819	1.0066	.9354
72-73	.9550	1.0656	1.0125	.9921	1.0476	1.0068	1.0071	1.0337	1.0279	.9800	.9747	.9758
73-74	.9578	.9647	.9467	.9652	1.0184	.9736	1.0067	.9811	1.0479	1.0090	.9390	.9367
74-75	.9301	.9413	.9664	.9822	.9948	.9767	1.0221	.9843	1.0287	.9688	.9260	.9663
MEAN	.9463	.9943	.9751	.9877	1.0087	1.0019	1.0212	1.0104	1.0537	.9996	.9771	.9668

C. ENROLLMENT PROJECTION

YEAR	K	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
74-75	341	333	321	317	332	387	378	416	439	429	466	413	402	4974
75-76	352	323	331	313	313	335	388	386	420	463	429	455	399	4907
76-77	358	333	321	323	309	316	336	396	390	443	463	419	440	4847
77-78	309	339	331	313	319	312	317	343	400	411	443	452	405	4694
78-79	257	292	337	323	309	322	313	324	347	421	411	433	437	4526
79-80	231	243	290	329	319	312	323	320	327	366	421	402	419	4302

TABLE 29. SCHOOL ENROLLMENT BY COUNTY, 1969-70 -- 1979-80, ACTUAL AND PROJECTED - CARROLL COUNTY

A. ENROLLMENT HISTORY

YEAR	K	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
69-70	553	529	535	482	555	576	503	556	516	596	587	567	515	7070
70-71	519	537	517	538	531	550	586	507	553	550	592	565	560	7105
71-72	432	509	514	521	526	530	541	577	500	574	553	580	557	6914
72-73	456	452	544	517	520	532	535	551	588	534	565	541	572	6907
73-74	405	432	434	468	484	492	509	496	516	614	529	563	525	6467
74-75	396	406	445	461	502	521	520	542	532	585	605	503	550	6568

B. SURVIVAL RATIOS

YEAR	K-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12
70-71	.9711	.9773	1.0056	1.1017	.9910	1.0174	1.0080	.9946	1.0659	.9933	.9625	.9877
71-72	.9807	.9572	1.0077	.9777	.9981	.9836	.9846	.9862	1.0380	1.0055	.9797	.9858
72-73	1.0463	1.0688	1.0058	.9981	1.0114	1.0b94	1.0185	1.0191	1.0680	.9843	.9783	.9862
73-74	.9474	.9602	.8603	.9362	.9462	.9568	.9271	.9365	1.0442	.9906	.9965	.9704
74-75	1.0024	1.0300	1.0622	1.0726	1.0764	1.0569	1.0648	1.0725	1.1377	.9853	.9508	.9769
MEAN	.9895	.9987	.9883	1.0172	1.0052	1.0048	1.0006	1.0017	1.0707	.9918	.9735	.9814

C. ENROLLMENT PROJECTION

YEAR	K	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
74-75	396	406	445	461	502	521	520	542	532	585	605	503	550	6568
75-76	343	392	405	440	469	505	524	520	543	570	580	589	494	6374
76-77	318	339	39-	400	448	471	507	524	521	581	565	566	578	6209
77-78	286	315	339	386	407	450	473	507	525	558	576	550	555	5927
78-79	246	283	315	335	393	409	452	473	508	562	553	561	540	5630
79-80	228	243	283	311	341	395	411	452	473	543	557	538	551	5326

TABLE 30. SCHOOL ENROLLMENT BY COUNTY, 1969-70 -- 1979-80, ACTUAL AND PROJECTED - DALLAS COUNTY

A. ENROLLMENT HISTORY

YEAR	K	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
69-70	573	533	513	563	578	527	550	477	531	507	494	480	460	6792
70-71	577	553	508	512	548	547	534	565	481	555	497	481	459	6757
71-72	460	459	502	465	485	544	552	542	551	509	529	496	472	6566
72-73	343	416	417	482	450	381	551	567	553	713	495	505	480	6353
73-74	500	488	469	482	564	515	522	581	587	570	585	458	479	6800
74-75	532	456	477	471	493	546	522	525	588	600	561	536	448	6755

B. SURVIVAL RATIOS

YEAR	K-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12
70-71	.9651	.9531	.9981	.9734	.9464	1.0133	1.0273	1.0084	1.0452	.9803	.9737	.9563
71-72	.8878	.9078	.9154	.9473	.9927	1.0091	1.0150	.9752	1.0582	.9532	.9980	.9813
72-73	.9043	.9085	.9602	.9677	.7856	1.0129	1.0272	1.0203	1.2940	.9725	.9546	.9677
73-74	1.4227	1.1274	1.1559	1.1701	1.1444	1.3701	1.0544	1.0353	1.0307	.8205	.9253	.9485
74-75	.9120	.9774	1.0042	1.0228	.9680	1.0135	1.0057	1.0120	1.0221	.9842	.9162	.9781
MEAN	1.0183	.9748	1.0067	1.0162	.9674	1.0837	1.0259	1.0102	1.0900	.9421	.9535	.9663

C. ENROLLMENT PROJECTION

YEAR	K	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
74-75	532	456	477	471	493	546	522	525	588	600	561	536	448	6755
75-76	474	542	445	480	479	477	592	536	530	640	565	535	518	6813
76-77	482	483	528	448	488	463	517	607	541	578	603	539	517	6794
77-78	396	491	471	532	455	472	502	530	613	590	545	575	521	6693
78-79	306	403	479	474	541	440	512	575	535	668	556	520	556	6505
79-80	303	312	393	482	482	523	477	525	520	583	629	530	502	6261

TABLE 32. SCHOOL ENROLLMENT BY COUNTY, 1969-70 -- 1979-80, ACTUAL AND PROJECTED - GUTHRIE COUNTY

A. ENROLLMENT HISTORY

YEAR	K	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
69-70	257	293	278	296	312	294	285	277	304	302	297	317	303	3811
70-71	229	247	277	272	291	318	302	289	282	307	299	295	309	3717
71-72	218	236	272	281	275	309	339	310	300	298	313	291	302	3744
72-73	210	221	224	267	282	278	316	331	318	305	292	299	288	3631
73-74	223	223	217	236	270	295	283	326	335	326	301	278	287	3600
74-75	232	250	235	249	266	280	296	300	320	335	313	286	260	3622

B. SURVIVAL RATIOS

YEAR	K-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12
70-71	1.0405	.9454	.9784	.9831	1.0292	1.0272	1.0140	1.0181	1.0099	.9901	.9933	.9748
71-72	1.0306	1.1012	1.0144	1.0110	1.0619	1.0660	1.0265	1.0381	1.0567	1.0195	.9732	1.0237
72-73	1.0138	.9492	.9816	1.0036	1.0109	1.0227	.9764	1.0258	1.0167	.9799	.9553	.9897
73-74	1.0619	.9819	1.0536	1.0112	1.0461	1.0180	1.0316	1.0121	1.0252	.9869	.9521	.9599
74-75	1.1210	1.0538	1.1474	1.1271	1.0370	1.1428	1.0600	.9815	1.0000	.9601	.9501	.9318
MEAN	1.0535	1.0063	1.0350	1.0272	1.0350	1.0553	1.0217	1.0151	1.0217	.9873	.9648	.9759

C. ENROLLMENT PROJECTION

YEAR	K	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
74-75	232	250	235	249	266	280	296	300	320	335	313	286	260	3622
75-76	194	244	252	243	256	275	295	302	305	327	331	302	279	3605
76-77	190	204	246	261	250	265	290	301	307	312	323	319	303	3571
77-78	178	200	205	255	268	259	280	296	306	314	308	312	311	3492
78-79	131	188	201	212	262	277	273	286	300	313	310	309	304	3366
79-80	128	138	189	208	218	271	292	279	290	307	309	299	302	3230

TABLE 31. SCHOOL ENROLLMENT BY COUNTY, 1969-70 -- 1979-80, ACTUAL AND PROJECTED - JASPER COUNTY

A. ENROLLMENT HISTORY

YEAR	K	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
69-70	641	666	709	685	736	734	664	687	674	699	699	612	601	8807
70-71	608	669	656	722	672	724	728	678	685	657	684	679	588	8750
71-72	586	635	649	661	703	670	722	728	669	681	693	655	648	8700
72-73	561	580	605	657	822	859	666	719	569	515	665	650	601	8469
73-74	519	561	585	600	658	655	702	651	726	747	658	645	612	8319
74-75	537	518	555	567	604	657	647	692	646	729	725	624	588	8089

B. SURVIVAL RATIOS

YEAR	K-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12
70-71	1.0437	.9850	1.0183	.9810	.9837	.9918	1.0528	.9971	.9748	.9785	.9714	.9608
71-72	1.0444	.9701	1.0076	.9737	.9970	.9972	1.0000	.9867	.9942	1.0548	.9576	.9543
72-73	.9898	.9528	1.0123	1.2436	1.2219	.9940	.9958	.7816	.7698	.9765	.9380	.9176
73-74	1.0000	1.0086	.9917	1.0015	.7968	.8172	.9775	1.0097	1.3128	1.2777	.9699	.9415
74-75	.9980	.9893	.9692	1.0066	.9984	.9877	.9857	.9923	1.0041	.9705	.9483	.9116
MEAN	1.0151	.9811	.9998	1.0412	.9995	.9575	1.0023	.9534	1.0111	1.0516	.9570	.9371

C. ENROLLMENT PROJECTION

YEAR	K	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
74-75	537	518	555	567	604	657	647	692	646	729	725	624	588	8089
75-76	515	545	508	555	590	604	629	648	660	653	767	696	585	7953
76-77	525	523	535	508	578	590	578	630	618	667	687	734	650	7823
77-78	460	533	513	535	529	578	565	579	601	625	701	657	688	7564
78-79	457	467	523	513	557	529	553	566	552	608	657	671	616	7269
79-80	458	464	458	523	534	557	507	554	540	558	639	629	629	7050

TABLE 33. SCHOOL ENROLLMENT BY COUNTY, 1969-70 -- 1979-80, ACTUAL AND PROJECTED - MADISON COUNTY

A. ENROLLMENT HISTORY

YEAR	K	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
69-70	233	234	247	252	244	270	228	233	272	239	231	214	221	3118
70-71	219	256	226	254	261	247	263	236	239	265	222	218	198	3101
71-72	194	230	234	241	249	269	262	276	231	240	254	215	219	3114
72-73	195	217	211	250	239	253	286	273	280	240	235	251	207	3137
73-74	187	228	202	206	255	237	267	289	280	289	234	226	242	3142
74-75	218	215	211	211	206	261	245	270	284	273	284	230	208	3116

B. SURVIVAL RATIOS

YEAR	K-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12
70-71	1.0987	.9658	1.0283	1.0357	1.0123	1.1955	1.0351	.9828	.9743	.9289	.9437	.9112
71-72	1.0502	.9141	1.0664	.9803	1.0307	1.0607	1.0494	.9788	1.0480	.9585	.9685	1.0046
72-73	1.1186	.9174	1.0684	.9917	1.0161	1.0632	1.0420	1.0145	1.0390	.9792	.9882	.9628
73-74	1.1692	.9309	.9763	1.0200	.9916	1.0553	1.0105	1.0756	1.0321	.9750	.9617	.9641
74-75	1.1497	.9254	1.0445	1.0000	1.0235	1.0337	1.0112	.9826	.9750	.9826	.9829	.9203
MEAN	1.1172	.9307	1.0367	1.0055	1.0148	1.0816	1.0296	.9968	1.0136	.9648	.9690	.9526

C. ENROLLMENT PROJECTION

YEAR	K	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
74-75	218	215	211	211	206	261	245	270	284	273	284	230	208	3116
75-76	213	244	200	219	212	209	282	252	269	288	263	275	219	3145
76-77	190	238	227	207	220	215	226	290	251	273	278	255	262	3132
77-78	164	212	222	235	208	223	233	233	289	254	263	269	243	3048
78-79	152	183	197	230	236	211	241	240	232	293	245	255	256	2971
79-80	151	170	170	204	231	239	228	248	239	235	283	237	243	2878

TABLE 34. SCHOOL ENROLLMENT BY COUNTY, 1969-70 -- 1979-80, ACTUAL AND PROJECTED - MARION COUNTY

A. ENROLLMENT HISTORY

YEAR	K	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
69-70	539	491	491	507	495	501	491	531	463	566	518	546	478	6617
70-71	429	554	533	507	520	510	532	500	529	510	552	511	526	6713
71-72	468	456	547	524	501	516	501	533	504	583	491	547	486	6657
72-73	458	462	445	535	517	506	521	505	531	554	573	487	523	6617
73-74	433	486	484	456	529	517	510	537	497	580	547	545	463	6584
74-75	486	451	463	490	455	532	528	529	543	552	555	521	520	6625

B. SURVIVAL RATIOS

YEAR	K-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12
70-71	1.0278	1.0855	1.0326	1.0256	1.0303	1.0619	1.0183	.9962	1.1015	.9753	.9865	.9634
71-72	1.0629	.9874	.9831	.9882	.9923	.9824	1.0019	1.0080	1.1021	.9627	.9909	.9511
72-73	.9872	.9759	.9781	.9866	1.0100	1.0097	1.0080	.9962	1.0992	.9828	.9919	.9561
73-74	1.0611	1.0476	1.0247	.9869	1.0000	1.0079	1.0307	.9842	1.0923	.9874	.9511	.9507
74-75	1.2494	.9526	1.0123	.9978	1.0056	1.0312	1.0372	1.0111	1.1106	.9568	.9524	.9541
MEAN	1.0776	1.0098	1.0061	.9970	1.0076	1.0166	1.0192	.9991	1.0951	.9730	.9745	.9550

C. ENROLLMENT PROJECTION

YEAR	K	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
74-75	486	451	463	490	455	532	528	529	543	552	555	521	520	6625
75-76	419	524	455	466	489	536	541	538	528	595	537	541	498	6667
76-77	411	452	529	458	465	493	545	551	538	578	579	523	517	6639
77-78	332	443	456	532	457	469	501	555	551	589	562	564	499	6510
78-79	303	358	447	459	530	460	477	511	555	603	573	548	539	6363
79-80	279	327	362	450	458	534	466	486	511	608	587	558	523	6149

TABLE 35. SCHOOL ENROLLMENT BY COUNTY, 1969-70 -- 1979-80, ACTUAL AND PROJECTED - POLK COUNTY

A. ENROLLMENT HISTORY

YEAR	K	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
69-70	5333	5640	5647	5770	5749	5502	5126	5527	5525	5346	5101	4753	4438	69457
70-71	5370	5476	5699	5695	5896	5793	5681	5475	5429	5417	5240	4824	4298	71293
71-72	4992	5219	5221	5463	5526	5660	5661	5793	5369	5422	4855	4453	4047	67681
72-73	5018	4752	5150	5232	5414	5529	5650	5934	5729	5348	4841	4698	4078	67373
73-74	4895	4599	4391	4820	4985	5187	5286	5826	5785	5647	5316	5090	4607	66434
74-75	4882	4614	4584	4349	4830	4927	5240	5645	5779	5779	5588	4844	4375	65436

B. SURVIVAL RATIOS

YEAR	K-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12
70-71	1.0268	1.0105	1.0085	1.0218	1.0077	1.0325	1.0681	.9823	.9805	.9802	.9457	.9043
71-72	.9769	.9534	.9586	.9703	.9600	.9772	1.0197	.9806	.9987	.8963	.8489	.8389
72-73	.9519	.9868	1.0195	.9910	1.0005	.9982	1.0482	.9890	.9961	.8928	.9677	.9158
73-74	.9165	.9240	.9359	.9528	.9581	.9560	1.0312	.9749	.9857	.9940	1.0514	.9806
74-75	.9425	.9967	.9904	1.0020	.9883	1.0102	1.0679	.9919	.9989	.9895	.9112	.8595
MEAN	.9619	.9742	.9825	.9875	.9829	.9948	1.0470	.9837	.9919	.9505	.9449	.8998

C. ENROLLMENT PROJECTION

YEAR	K	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
74-75	4882	4614	4584	4349	4830	4927	5240	5645	5779	5779	5588	4844	4375	65436
75-76	4961	4696	4495	4504	4295	4747	4901	5486	5553	5732	5493	5280	4359	64502
76-77	4312	4772	4575	4416	4448	4222	4722	5131	5397	5508	5448	5190	4751	62892
77-78	3835	4148	4649	4495	4361	4372	4200	4944	5047	5353	5235	5148	4670	60457
78-79	2940	3689	4041	4568	4439	4286	4349	4397	4863	5006	5088	4947	4632	57245
79-80	2442	2828	3594	3970	4511	4363	4264	4553	4325	4824	4758	4808	4451	53690

TABLE 36. SCHOOL ENROLLMENT BY COUNTY, 1969-70 -- 1979-80, ACTUAL AND PROJECTED - STORY COUNTY

A. ENROLLMENT HISTORY

YEAR	K	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
69-70	1035	1012	1024	1008	977	911	884	875	900	910	942	869	864	12211
70-71	857	1013	981	1026	981	979	927	858	860	912	903	916	857	12070
71-72	869	885	987	968	906	997	965	954	870	903	934	913	901	12070
72-73	820	879	837	969	952	1015	981	975	942	897	884	902	887	11940
73-74	873	799	851	843	976	961	1000	977	957	958	885	862	852	11794
74-75	857	838	797	818	815	967	940	968	958	982	947	871	835	11593

B. SURVIVAL RATIOS

YEAR	K-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12
70-71	.9787	.9694	1.0020	.9732	1.0020	1.0176	.9706	.9829	1.0133	.9923	.9724	.9862
71-72	1.0327	.9743	.9867	.8830	1.0163	.9857	1.0291	1.0140	1.0500	1.0241	1.0111	.9836
72-73	1.0115	.9458	.9818	.9835	1.1203	.9840	1.0104	.9874	1.0310	.9790	.9657	.9715
73-74	.9744	.9681	1.0072	1.0072	1.0095	.9852	.9959	.9815	1.0170	.9866	.9751	.9446
74-75	.8612	.9874	.9612	.9667	.9907	.9781	.9680	.9805	1.0261	.9885	.9841	.9686
MEAN	.9717	.9710	.9877	.9627	1.0277	.9901	.9948	.9892	1.0274	.9961	.9816	.9709

C. ENROLLMENT PROJECTION

YEAR	K	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
74-75	857	838	797	818	815	967	940	968	958	982	947	871	835	11493
75-76	909	833	814	787	787	838	957	935	958	984	978	930	846	11556
76-77	884	883	809	804	758	809	830	952	925	984	980	960	903	11481
77-78	790	859	857	799	774	779	801	826	942	950	980	962	932	11251
78-79	646	768	834	846	769	795	771	797	817	968	946	962	934	10853
79-80	676	628	746	824	814	790	787	767	788	839	964	929	934	10486

TABLE 37. SCHOOL ENROLLMENT BY COUNTY, 1969-70 -- 1979-80, ACTUAL AND PROJECTED - WARREN COUNTY

A. ENROLLMENT HISTORY

YEAR	K	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
69-70	498	520	521	562	531	547	454	512	511	515	481	429	414	6495
70-71	483	505	514	533	576	532	556	464	515	507	497	447	402	6531
71-72	521	512	526	538	547	623	559	580	487	526	504	490	444	6857
72-73	496	553	498	548	553	558	623	565	583	499	510	492	464	6947
73-74	502	501	549	504	542	560	540	632	573	588	492	507	484	6974
74-75	549	495	515	563	523	557	567	559	628	585	568	473	473	7055

B. SURVIVAL RATIOS

YEAR	K-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12
70-71	1.0141	.9885	1.0230	1.0249	1.0019	1.0165	1.0220	1.0059	.9922	.9650	.9293	.9371
71-72	1.0600	1.0416	1.0467	1.0263	1.0816	1.0508	1.0432	1.0496	1.0214	.9941	.9859	.9933
72-73	1.0614	.9727	1.0418	1.0279	1.0201	1.0080	1.0107	1.0052	1.0246	.9696	.9762	.9469
73-74	1.0101	.9928	1.0120	.9891	1.0127	.9677	1.0064	1.0142	1.0086	.9860	.9941	.9837
74-75	.9860	1.0279	1.0255	1.0376	1.0276	1.0125	1.0351	.9936	1.0209	.9659	.9613	.9329
MEAN	1.0263	1.0047	1.0298	1.0211	1.0287	1.0111	1.0234	1.0137	1.0135	.9761	.9693	.9587

C. ENROLLMENT PROJECTION

YEAR	K	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
74-75	549	495	515	563	523	557	567	559	628	585	568	473	473	7055
75-76	539	563	497	530	575	538	563	580	567	636	571	551	453	7163
76-77	516	553	566	512	541	592	544	576	588	575	621	553	528	7265
77-78	476	530	556	583	523	556	599	557	584	596	561	602	530	7253
78-79	347	489	532	573	595	538	562	613	565	592	582	544	577	7109
79-80	310	356	491	548	585	612	544	575	621	573	578	564	522	6879

Financial Resources

Fiscal resources available to a school system will provide a major contributing (or limiting) factor in the decision to alter educational programming. Thus, given schools may reject consideration of curriculum development that would expand into career education areas not presently in operation.

Declining enrollment in most schools will have the effect of reducing pupil-teacher ratios, thereby driving up per pupil costs. One viable alternative may, in fact, be a cooperative development approach among clusters of schools in order to pool financial resources and make educational programming available to students not possible through a single district venture.

Data obtained from the Department of Public Instruction, Administration and Finance Section, is reported in Table 38. This table reflects, among other factors, indices of ability to pay, namely, assessed valuation per child and per pupil expenditures.

TABLE 38. PUBLIC SCHOOL FINANCIAL DATA, 1973-74 SCHOOL YEAR

COUNTY/SCHOOL	TOTAL A.D.M. 73-74 SAR	ASSESSED VALUATION	ASSESSED VALUATION PER RES. CHILD IN A.D.M.	FULL MILLAGE LEVY GEN.FUND	FULL MILLAGE LEVY SCH.H.FUND	GEN FD EXP. PER PUPIL A.D.M.	CURRENT EXP/PUPIL IN ADM
Audubon	2,013.6	34,017,367	16,894			1,147.02	1,093.23
Audubon	1,466.7	22,987,816	15,673	43.510	4.042	1,107.24	1,062.42
Exira	546.9	11,029,551	20,167	43.191	4.082	1,253.73	1,175.86
Boone	5,160.4	76,395,355	14,804			1,029.30	1,012.95
Boone	2,809.2	29,298,022	10,429	47.165	5.135	1,009.12	1,001.98
Grand Community	286.7	7,517,670	26,221	31.848	.000	1,146.48	1,109.55
Madrid	753.4	5,943,869	7,889	67.111	13.669	977.45	946.78
Ogden	858.3	19,950,482	23,244	31.813	4.382	985.61	969.93
United Community	452.8	13,685,312	30,224	37.609	6.635	1,249.36	1,211.50
Carroll	3,379.9	77,094,239	22,810			1,045.88	1,013.92
Carroll	1,411.0	44,869,727	31,800	24.915	.802	996.28	957.39
Coon Rapids	621.2	9,615,650	15,479	39.787	3.235	1,130.06	1,099.09
Glidden-Ralston	512.8	11,169,284	21,781	35.524	1.349	1,117.55	1.090.82
Manning	834.9	11,439,578	13,702	39.735	9.575	1,023.08	998.85
Dallas	6,806.2	95,941,201	14,096			1,060.31	1,010.27
Adel	1,115.0	12,546,927	11,253	42.046	4.777	936.18	910.21
Central Dallas	374.9	9,423,326	25,136	40.784	2.187	1,200.27	1,189.89
Dallas	821.8	12,917,447	15,718	41,329	9.465	1,110.87	928.09
Dexfield	630.3	13,328,349	21,146	42.230	.000	1,129.19	1,104.46
Perry	1,765.8	23,435,931	13,272	47.469	5.039	1.120.25	1,090.12
Van Meter	368.8	4,728,667	12,822	49.577	5.552	1.125.40	1,110.88
Waukee	966.3	8,989,392	9,303	38.797	8.559	854.18	820.08
Woodward-Granger	763.3	10,571,162	13,849	50.239	8.906	1,152.41	1,086.35
Guthrie	3,597.1	57,423,440	15,964			1,083.18	1,016.22
Adair-Casey	616.3	9,547,781	15,492	40.326	4.259	1,054.07	1,009.02
Bayard	285.7	5,924,239	20,736	45.331	.000	1,277.75	1,217.72
Guthrie Center	791.4	12,303,344	15,546	35.027	9.654	1,009.13	988.59
Panora-Linden	598.9	9,069,229	15,143	45.215	10.323	1,259.31	1,028.52
Stuart-Menlo	867.6	11,820,188	13,624	40.473	4.377	973.44	949.17
Y-J-B	437.2	8,758,659	20,034	38.836	.000	1,107.63	1,060.86

TABLE 38.(continued) - PUBLIC SCHOOL FINANCIAL DATA, 1973-74 SCHOOL YEAR

COUNTY/SCHOOL	TOTAL A.D.M. 73-74 SAR	ASSESSED VALUATION	ASSESSED VALUATION PER RES. CHILD IN A.D.M.	FULL MILLAGE LEVY GEN.FUND	FULL MILLAGE LEVY SCH.H.FUND	GEN FD EXP. PER PUPIL A.D.M.	CURRENT EXP/PUPIL IN ADM
Jasper	8,276.0	102,686,048	12,408			1,030.57	1,016.97
Baxter	408.9	5,086,723	12,440	52.186	5.779	1,113.81	1,106.92
Colfax	843.3	7,115,406	8,438	49.003	7.382	948.04	928.93
Lynnville-Sully	696.2	12,717,419	18,267	38.629	2.708	1,074.65	1,029.00
Mingo	287.2	3,710,751	12,920	42.703	3.989	1,012.56	1,005.34
New Monroe	772.6	8,897,636	11,516	44.975	3.929	930.00	912.69
Newton	4,738.0	56,209,406	11,864	44.593	7.206	1,038.71	1,029.43
Prairie City	529.8	8,948,707	16,891	43.389	13.271	1,123.39	1,118.77
Madison	3,144.0	42,483,194	13,512			1,035.21	1,007.99
Earlham	574.5	9,012,063	15,687	44.492	4.994	1,063.69	1,040.67
Interstate 35	933.1	11,355,740	12,170	43.672	3.962	983.78	971.03
Winterset	1,636.4	22,115,391	13,515	42.164	4.985	1,054.54	1,017.60
Marion	5,853.8	67,397,385	11,513			973.63	943.97
Knoxville	2,286.6	20,944,772	9,160	41.918	9.933	941.16	919.63
Melcher-Dallas	570.7	4,385,839	7,685	61.293	3.184	1,041.90	1,017.66
Pella	1,534.6	27,021,459	17,608	35.762	6.648	937.71	925.99
Pleasantville	755.7	7,975,351	10,554	44.318	9.661	1,038.91	931.32
Twin Cedars	706.2	7,069,964	10,011	48.305	10.889	1,031.82	1,015.83
Polk	63,569.2	735,293,413	11,567			1,077.90	1,056.66
Ankeny	3,832.5	34,864,727	9,097	53.634	13.699	916.11	885.88
Bondurant-Farrar	694.0	10,677,082	15,385	49.113	10.327	1,137.09	1,094.55
Des Moines Ind.	41,135.3	490,082,199	11,914	54.915	10.263	1,135.25	1,118.23
Johnston	1,451.3	13,809,088	9,515	49.591	16.322	776.74	771.11
North Polk	754.1	11,582,252	15,359	42.000	2.233	1,036.08	1,010.45
Saydel	2,231.9	29,827,403	13,364	54.081	8.229	1,113.48	1,088.55
Southeast Polk	3,314.8	40,986,058	12,365	49.342	11.049	1.030.78	1,015.22
Urbandale	3,643.6	29,426,737	8,076	59.477	14.909	996.82	940.00
West Des Moines	6,511.7	74,037,867	11,370	47.494	13.930	933.63	908.61

TABLE 38 (continued) - PUBLIC SCHOOLS FINANCIAL DATA, 1973-74 SCHOOL YEAR

COUNTY/SCHOOL	TOTAL A.D.M. 73-74 SAR	ASSESSED VALUATION	ASSESSED VALUATION PER RES. CHILD IN A.D.M.	FULL MILLAGE LEVY GEN.FUND	FULL MILLAGE LEVY SCH.H.FUND	GEN FD EXP. PER PUPIL A.D.M.	CURRENT EXP/PUPIL IN ADM
Story	11,442.4	173,727,047	15,183			1,088.16	1,069.31
Ames	5,730.7	75,556,281	13,184	60.860	10.640	1,138.90	1,132.48
Ballard	1,153.9	15,186,292	13,161	38.719	9.527	998.54	917.19
Collins	212.3	5,609,127	26,421	35.555	1.863	1,222.78	1,203.44
Colo	337.9	8,322,621	24,630	36.138	2.674	1,167.51	1,154.75
Gilbert	613.4	7,912,046	12,899	51.295	6.528	1,017.95	980.87
Maxwell	356.7	6,791,537	19,040	46.074	.000	1,024.45	1,015.54
Nesco	414.7	13,005,582	31,361	41.651	.000	1,317.94	1,286.58
Nevada	1,555.9	24,023,911	15,441	36.560	3.964	969.24	954.59
Roland-Story	1,066.9	17,319,650	16,234	39.828	3.849	1,006.39	992.44
Warren	6,995.7	60,285,609	8,618			929.72	894.07
Carlisle	1,368.5	11,858,709	8,665	58.387	10.263	951.21	930.59
Indianola	2,874.6	25,404,569	8,838	57.536	13.095	940.04	894.68
Martensdale-St. M	529.2	5,254,712	9,930	54.996	2.168	989.95	951.43
Norwalk	1,361.8	8,878,079	6,519	64.716	15.951	891.09	845.45
Southeast Warren	861.6	8,889,540	10,317	49.994	10.808	885.23	875.65

CHAPTER FOUR

NEEDS ASSESSMENT

Introduction

This section of the planning study addresses itself to a variety of needs assessment factors, each of which contributes as an input variable in long range planning and decision-making.

The content of Chapter Four is a compilation of a number of studies conducted by the college and other agencies within the DMACC district.

Special Needs Identification

Table 39, A Profile of Area XI - Special Needs Population, is a summarization of an unpublished report assembled by the Special Needs Coordinator at the college in early 1975. Essentially, this report identifies the number of persons within each special needs classification for each county in the merged area. Each group thus identified has unique and particular educational needs in order to "fit" themselves into society and the world of work. The implications for career education programming needs are great, but as yet are not adequately serviced by any educational unit.

TABLE 39. SPECIAL NEEDS DATA FOR MERGED AREA XI POPULATION

COUNTY	LOW INCOME INDIVIDUALS	PUBLIC ASSISTANCE PROGRAMS						
		OLD AGE	ADC	AID TO BLIND	AID TO DISABLED	SPEECH IMPAIRMENT	EMOTIONALLY DISTURBED	DRUG DISABILITY
Audubon	1252	48	107	2	11	97	55	28
Boone	2040	132	614	15	18	220	126	63
Carroll	2820	93	312	7	23	256	146	73
Dallas	2161	100	542	11	11	262	150	75
Guthrie	1772	85	245	4	8	148	85	42
Jasper	2704	102	830	13	21	349	199	100
Madison	1348	71	109	7	19	123	70	35
Marion	2262	120	694	14	24	252	144	144
Polk	23,555	971	14,718	165	393	2610	1491	746
Story	4874	120	705	11	11	455	260	130
Warren	2201	79	469	2	16	252	144	72
TOTAL	46,989	1921	19,345	251	555	5024	2870	1508

TABLE 39, continued

COUNTY	HEARING DISABILITY	CRIPPLED	VISUAL IMPAIRMENT	ANNUAL DROP-OUTS	OVER 25 LESS THAN H.S. DIPLOMA	MINORITY POPULATION	NUMBER UNEMPLOYED
Audubon	15	15	3	8	3062	5	100
Boone	35	35	6	67	6623	81	310
Carroll	42	41	7	26	6257	24	340
Dallas	42	44	7	65	5456	94	340
Guthrie	24	23	4	37	3641	17	140
Jasper	57	56	10	109	8673	103	460
Madison	21	20	3	31	2868	15	130
Marion	41	40	7	70	7729	184	240
Polk	429	418	75	1372	49,233	15,201	4000
Story	75	72	13	74	6506	981	570
Warren	41	40	7	54	4393	90	670
TOTAL	822	804	142	1913	104,441	16,795	7300

Manpower Needs

The one variable which in all liklihood should weigh most heavily in career program development planning decisions is the collective manpower "demand" factor. Information surrounding this key element must of necessity be derived from a number of sources and approaches.

This report includes summaries of several manpower need surveys as general indicators of the status of selected occupational areas. It should be noted, however, that many external forces exist and can quickly negate these generalizations. Such factors as the condition of the economy and its inherent multiplier effects as well as the advancement of technology can affect the specifics of a long range planning program. Thus, continual re-assessment and evaluation of the manpower needs is essential to keep current with trends and occupational status.

Data in Table 40 describes the results of a district-wide skilled needs survey conducted by DMACC in late 1970. Eleven survey documents were developed utilizing job classifications most common to major groups of employers. Each survey requested the following information:

(a) present number of employees
(b) current vacancies
(c) anticipated employment in 1, 3, and 5 years
(d) current formal in-plant training numbers

From this data, projections were made of the number of new and replacement workers who were needed to be trained by September of 1971, 1973, and 1975. Obviously, the data from that report, and its projections is essentially out of date. However, the utility of such data lies in its value to establish trends and employment patterns.

TABLE 40. SUMMARY OF 1970 SKILLED NEEDS SURVEY

OCCUPATIONAL "CLUSTER"/ EMPLOYMENT AREA	TRAINING NEEDS PROJECTED TO 1975 FROM 1970 LEVELS
OFFICE OCCUPATIONS	
Secretarial Science	2127
General Clerical	2558
General Accounting	2174
DATA PROCESSING	
Programmers	673
Punch Card Accounting	417
AUTOMOTIVE & DIESEL	
Auto Mechanics	708
Auto Body Repair	105
Auto Servicing	216
Diesel and Farm Equipment	215
Other (Drivers included)	826
HEALTH OCCUPATIONS	
Registered Nurse	231
Licensed Practical Nurse	230
Aides	418
Medical Assistants	155
Operating Room Personnel	23
Medical Lab Assistants	94
Dental Lab Technicians	39
Dental Assistants	55
Others	50

TABLE 40 (continued)

OCCUPATIONAL "CLUSTER"/ EMPLOYMENT AREA	TRAINING NEEDS PROJECTED TO 1975 OVER 1970 LEVELS
SALES OCCUPATIONS	
Mid-management Marketing	2081
Retail selling	1129
Others	51
SERVICE INDUSTRIES	
Conditioned Air	67
Electronics	77
Small Machine Repair	75
TEXTILES	
Power Sew Machine Operator	94
Others	153
PRINTING	
Photo Offset printing	175
Letter press printing	227
MANUFACTURING & INDUSTRIAL	
Machinist	602
Machine Operator	331
Industrial Mechanics	229
Sheet Metal	1102
Welding	1270
Mechanical Technology	352
Electrical Technician	60
Draftsman	210
Others	613

TABLE 40 (continued)

OCCUPATIONAL "CLUSTER"/ EMPLOYMENT AREA	TRAINING NEEDS PROJECTED TO 1975 OVER 1970 LEVELS
CONSTRUCTION	
Heavy Equipment Operation	378
Carpentry	490
Plumbing	613
Painting	220
Electrician	437
Concrete-Masonry	526
Others	366
FOOD SERVICE OCCUPATIONS	
Commercial Cooking	593
Commercial Baking	116
Meat Cutting	115
Hostess and Cashier	301
Private Service	1059
AGRI-OCCUPATIONS	
Agri-business	448
MANAGERIAL	114
COMMERCIAL ART	124
PUBLIC SERVICE OCCUPATIONS	
Law Enforcement	537
Fire Science	91

The Des Moines Area Community College, recognizing that massive skilled needs surveys cannot be replicated frequently, has devised a mini-survey approach to key in on specialized occupational areas in the

feasibility study process. These surveys are directed solely to employers with specific occupational training requirements, and are supplemental to the Career Education Needs Information System described in the next section. The "mini-surveys" are normally generated at the request of division level administrators at DMACC who play an important role in initiating program development efforts.

Career Education Needs Information System (CENIS)

In the early 1970's the Iowa Department of Public Instruction generated the CENIS Survey project. Organized on a state-wide basis, the CENIS project samples representative employers and from that sampling projects a labor demand analysis for approximately 300 occupations for each merged area and for the state as a whole.

In essence, CENIS-collected data is similar to that described in the earlier skilled needs survey efforts of DMACC. Factors included are full-time employees, current vacancies, estimated employment levels for one, three, and five years; and replacement needs for each of those three years.

The Labor Demand Analysis tables of the CENIS report (conducted in late 1972) indicated labor needs as expressed by both replacement (due to turnover) and expansion. These indicators constitute another of the input variables utilized in considering the manpower need picture in conducting feasibility studies.

TABLE 41. LABOR DEMAND FOR MERGED AREA XI AS DERIVED FROM CENIS

OCCUPATIONAL CLUSTER	NEEDS							
	1975				1977			
	EXPN	REPL	TOTAL	% OF TOT	EXPN	REPL	TOTAL	% OF TOT
Agri Business	110	153	263	2.4	131	184	315	2.4
Environment	-	-	-	-	-	-	-	-
Commun & Media	69	115	184	1.7	109	134	243	1.9
Construction	428	671	1099	10.2	549	695	1244	9.7
Consumer & Hmkg	31	306	337	3.1	32	306	338	2.6
Fine Arts & Humam	-	-	-	-	-	-	-	-
Health	90	774	864	8.0	144	820	964	7.5
Hospitality & Recr	22	12	34	0.3	22	16	38	0.3
Manufacturing	901	1137	2038	18.9	1342	1194	2536	19.8
Marine Science	-	-	-	-	-	-	-	-
Mktg & Distrib	586	1016	1602	14.9	769	1109	1878	14.6
Business & Office	771	2013	2784	25.8	1157	2281	3438	26.8
Pers. Services	21	78	99	0.9	26	75	101	0.8
Public Service	48	248	296	2.7	59	268	327	2.5
Transportation	473	699	1172	11.1	703	705	1408	11.1
TOTAL	3550	7222	10772	100.0	5043	7787	12830	100.0

Student Aspirations

Another segment of the Spring 1974 student survey discussed in Chapter Three that addresses needs assessment is an analysis of student aspirations.

The survey asked students, among other items, to express their post-graduation intent in one of four categories. They were:

(1) Directly enter the labor market

(2) Enter skilled training in a less-than-four-year college educational program

(3) Attend a four-year college

(4) Other (marriage only, or indecision as to intent).

These data are reported in Tables 42 through 52. To interpret the students' expressed intent, an examination of both goals and present involvement in vocational education is necessary. Should analysis indicate that more students depend upon the secondary school for preparation for job entry than curriculum programming provides opportunity, then in practicality, curriculum revision is, or may be, a necessary alternative. Also indicated may be the need for more extensive career counseling and vocational awareness efforts by the school guidance department.

TABLE 42. Post-graduation aspirations of students in Audubon County (Expressed as percent of total within each school)

School	Enter Employment	Skilled Training	4 Year College	Undecided
Audubon	16.5	29.9	19.5	34.1
Exira (1)				

(1) Did not participate

TABLE 43. Post-graduation aspirations of students in Boone County (Expressed as percent of total within each school)

School	Enter Employment	Skilled Training	4 Year College	Undecided
Boone	16.7	14.6	19.0	49.7
Grand Community	20.7	36.6	20.7	22.0
Madrid	16.5	25.6	20.8	37.1
Ogden (1)	22.1	54.3	47.1	10.8
United Community	16.1	23.8	30.0	30.0

(1) Total exceeds 100% due to multiple responses by students

TABLE 44. Post-graduation aspirations of students in Carroll County (Expressed as percent of total within each school)

School	Enter Employment	Skilled Training	4 Year College	Undecided
Carroll	19.3	34.3	29.0	17.4
Carroll Kuemper	12.3	34.3	26.5	26.9
Coon Rapids	13.3	34.4	29.7	22.6
Glidden-Ralston	(1)	(1)	(1)	(1)
Manning	(1)	(1)	(1)	(1)
St. Bernard's (Breda)	0.0	24.2	19.6	56.2

(1) Did not participate

TABLE 45. Post-graduation aspirations of students in Dallas County (Expressed as percent of total within each school)

School	Enter Employment	Skilled Training	4 Year College	Undecided
Adel	13.8	34.1	28.0	24.1
Central Dallas	(1)	(1)	(1)	(1)
Dallas Community	16.3	30.1	35.0	18.6
Dexfield	24.8	19.5	17.7	38.0
Perry	17.4	27.4	32.0	23.2
Van Meter	29.9	20.8	32.5	16.8
Waukee	7.7	18.1	25.8	48.4
Woodward-Granger	(1)	(1)	(1)	(1)

(1) Did not participate

TABLE 46. Post-graduation aspirations of students in Guthrie County (Expressed as percent of total within each school)

School	Enter Employment	Skilled Training	4 Year College	Undecided
Adair-Casey	16.5	29.9	19.5	34.1
Bayard	33.8	21.7	9.5	35.0
Guthrie Center	20.6	25.7	21.8	31.9
Panora-Linden (1)	13.6	73.7	39.9	14.3
Stuart-Menlo	17.5	21.4	23.5	37.6
Y-J-B	39.4	9.6	5.4	45.6

(1) Total exceeds 100% due to multiple responses by students

TABLE 47. Post-graduation aspirations of students in Jasper County (Expressed as percent of total within each school)

School	Enter Employment	Skilled Training	4 Year College	Undecided
Baxter (1)	0.0	14.2	20.7	65.1
Colfax	23.9	26.8	22.5	26.8
Lynnville-Sully	39.8	18.1	31.3	10.8
Mingo	(2)	(2)	(2)	(2)
New Monroe	30.3	26.9	24.2	18.6
Newton	21.6	26.4	42.8	9.2
Prairie City	10.1	25.2	17.3	47.4

(1) Incomplete responses affected data for this school

(2) Did not participate

TABLE 48. Post-graduation aspirations of students in Madison County (Expressed as percent of total within each school)

School	Enter Employment	Skilled Training	4 Year College	Undecided
Earlham	23.9	32.2	21.2	22.7
I-35	20.4	24.1	20.4	35.1
Winterset	17.2	29.9	25.8	27.1

TABLE 49. Post-graduation aspirations of students in Marion County (Expressed as percent of total within each school)

School	Enter Employment	Skilled Training	4 Year College	Undecided
Knoxville	20.1	23.7	35.6	20.6
Melcher-Dallas	31.4	35.8	21.9	10.9
Pella	19.2	23.9	32.5	24.4
Pella Christian	20.5	33.1	30.0	16.4
Pleasantville	42.1	15.3	33.2	9.4
Twin Cedars	39.9	15.3	17.0	27.8

TABLE 50. Post-graduation aspirations of students in Polk County (Expressed as percent of total within each school)

School	Enter Employment	Skilled Training	4 Year College	Undecided
Ankeny (1)	15.1	52.5	50.1	0.6
Bondurant-Farrar	21.7	29.0	31.4	17.9
Des Moines Independent	(2)	(2)	(2)	(2)
Dowling	7.4	16.1	59.0	17.5
Johnston	(3)	(3)	(3)	(3)
North Polk	14.3	26.0	20.2	39.5
Saydel	21.5	34.0	23.9	20.6
Southeast Polk (4)	21.1	16.7	33.4	28.8
Urbandale	8.3	16.4	42.1	33.2
Valley	3.5	12.6	43.1	40.8

(1) Total exceeds 100% due to multiple responses by students
(2) Not included in the survey
(3) Did not participate
(4) Data from 9th grade class only

TABLE 51. Post-graduation aspirations of students in Story County (Expressed as percent of total within each school)

School	Enter Employment	Skilled Training	4 Year College	Undecided
Ames	(1)	(1)	(1)	(1)
Ballard	(1)	(1)	(1)	(1)
Collins	(1)	(1)	(1)	(1)
Colo	10.0	42.5	25.0	22.5
Gilbert	(1)	(1)	(1)	(1)
Maxwell	11.3	17.0	28.2	43.5
Nesco	(1)	(1)	(1)	(1)
Nevada	17.1	22.5	29.6	31.3
Oak Park (2)	0.0	16.7	75.0	8.3
Roland-Story	7.6	24.5	27.2	40.7

(1) Did not participate
(2) Data from 11th grade class only

TABLE 52. Post-graduation aspirations of students in Warren County (Expressed as percent of total within each school)

School	Enter Employment	Skilled Training	4 Year College	Undecided
Carlisle	2.6	17.7	21.3	58.4
Indianola	18.0	26.3	38.5	17.2
Martensdale-St. Mary's	29.6	29.6	20.5	20.3
Norwalk-Lakewood	(1)	(1)	(1)	(1)
Southeast Warren	(1)	(1)	(1)	(1)

(1) Did not participate

Student Interest

The student survey described earlier in Chapter Three and again in a preceding section of this chapter included several additional components. The survey asked students not only what their aspirations were upon graduation, but also what field or occupational cluster they intended or desired to enter upon high school graduation or completion of enrollment in some level of formal training.

The results of those interest patterns are reflected in Table 53, on a county basis.

To supplement the occupational interest cluster portion of the survey, the students were asked to respond to a "what if" type of situation. In the first case, students were asked to indicate from ten pre-selected curriculum areas as many of the ten as they would like to explore in a hands-on learning situation. The second "what-if" condition was similar. Students were asked to indicate their first, second, and third choice of the ten curriculum areas in terms of those in which they would be interested in preparatory training while still enrolled in high school. The outcomes of these two sets of responses are described in Tables 54 and 55. (Note: Table 55 - Preparatory coursework tabulation includes only the first choice responses from the students.)

The importance of data such as student interest in exploratory and preparatory courses lies in the value of input from students in curriculum development. Schools may, in fact, have existing programming in which students participate, but such participation may exist solely because it is the only alternative available to the traditional program involvement.

TABLE 53. OCCUPATIONAL CLUSTERS FOR WHICH STUDENTS EXPRESSED AN ENTRY INTEREST, EITHER THROUGH JOB ENTRY UPON GRADUATION OR THROUGH FORMAL TRAINING (by percent).

COUNTY	Ag-Business	Environmen.	Commun.Media	Construction	Consumer-Hmkg	Fine Arts	Health	Hospitality
Audubon	7.41	1.85	4.63	4.63	1.85	6.48	17.59	0.00
Boone	11.21	1.77	3.53	7.89	5.09	3.53	19.00	1.04
Carroll	12.81	2.14	3.20	6.23	2.49	3.38	19.75	1.42
Dallas	10.98	0.66	5.08	6.07	3.77	3.93	12.30	1.31
Guthrie	19.48	1.82	3.38	7.53	2.34	1.56	10.13	1.04
Jasper	10.47	1.89	4.07	6.40	4.65	4.07	10.61	0.15
Madison	14.02	0.00	3.27	7.01	3.74	6.07	11.68	1.87
Marion	10.56	2.04	3.72	7.32	2.76	5.88	13.81	2.76
Polk	5.29	3.08	4.66	9,98	6.50	7.50	10.86	4.72
Story	13.46	0.64	3.53	6.73	2.56	5.45	10.58	1.28
Warren	6.05	3.03	4.14	8.92	1.59	5.89	11.94	2.71
TOTAL DISTRICT	6.78	2.77	4.49	9.34	5.77	6.79	11.70	3.96

COUNTY	Manufact.	Marine Sci.	Marketing	Off. & Bus.	Pers. Svc.	Public Svc.	Transport.	Other
Audubon	1.85	0.00	0.00	15.74	7.41	19.44	11.12	0.00
Boone	1.97	0.52	2.80	13.29	1.35	16.93	7.68	2.40
Carroll	0.18	0.00	1.78	17.62	1.96	15.48	7.65	3.91
Dallas	3.44	0.16	2.95	15.57	1.97	19.34	12.47	0.00
Guthrie	1.30	0.00	2.34	16.62	3.38	10.91	12.21	5.96
Jasper	4.80	0.00	2.62	20.06	2.76	14.68	8.28	4.49
Madison	1.87	0.00	0.93	13.08	4.21	12.62	6.07	13.56
Marion	5.40	0.00	1.44	16.21	2,76	13.57	8.52	3.25
Polk	1.94	0.44	2.13	13.36	4.35	12.13	9.09	3.97
Story	3.21	0.00	1.60	16.35	2.56	21.47	9.94	0.64
Warren	0.64	0.16	1.11	14.97	3.82	9.71	7.48	17.84
TOTAL DISTRICT	2.14	0.37	2.12	13.61	3.95	12.90	9.08	4.23

TABLE 54. STUDENT INTEREST IN EXPLORATORY (HANDS-ON) CAREER LEARNING EXPERIENCES (BY PERCENT).

COUNTY	ELECTRON.	MECH.	HEALTH AIDES	OFFICE ED	LAW ENFORC.	BLDG. TRADES	AGRI BUS.	RETAIL SALES	MACH. OPER.	TRUCK DRIVING	OTHER
Audubon	4.83	12.02	12.57	14.23	5.66	5.80	9.39	9.94	6.49	9.67	9.40
Boone	5.20	11.16	14.94	12.52	7.56	7.03	6.73	9.27	7.44	6.85	11.30
Carroll	7.42	9.81	14.92	14.80	7.11	6.64	5.32	12.43	5.79	5.40	10.37
Dallas	5.75	11.72	13.91	12.67	7.86	7.90	4.38	10.82	6.70	7.99	10.30
Guthrie	7.39	12.36	11.81	12.06	7.29	7.34	7.99	8.84	7.04	8.49	9.39
Jasper	6.84	11.58	11.41	12.96	7.79	7.23	5.70	11.16	7.79	8.29	9.25
Madison	6.37	12.28	9.62	12.40	7.76	7.07	7.42	8.92	8.34	10.31	9.51
Marion	7.17	11.84	13.54	13.03	9.66	6.22	5.68	10.97	6.07	7.68	8.14
Polk	6.85	10.22	13.74	11.89	10.88	7.52	5.28	10.49	5.30	6.47	11.36
Story	6.62	10.13	13.18	13.05	9.40	5.96	6.49	11.32	7.09	7.15	9.61
Warren	7.44	11.05	12.74	11.42	9.74	8.18	4.64	10.02	6.33	7.76	10.68
DISTRICT	6.76	11.04	13.25	12.63	8.91	7.15	5.77	10.58	6.40	7.37	10.14

TABLE 55. STUDENT INTEREST IN PREPARATORY CAREER LEARNING EXPERIENCES (BY PERCENT EXPRESSION OF FIRST CHOICE).

COUNTY	ELECTRON.	MECH.	HEALTH AIDES	OFFICE ED	LAW ENFORC.	BLDG. TRADES	AGRI BUS.	RETAIL SALES	MACH. OPER.	TRUCK DRIVING	OTHER
Audubon	3.44	13.75	17.87	18.90	3.44	5.84	13.40	6.19	1.03	3.09	13.05
Boone	4.68	12.60	20.39	17.01	4.42	4.94	6.49	4.81	2.21	3.90	18.55
Carroll	7.54	9.99	18.47	17.25	3.86	5.09	5.37	7.73	1.70	3.86	19.14
Dallas	5.83	12.24	16.91	15.55	5.44	6.51	5.73	7.58	2.14	3.21	18.86
Guthrie	6.77	13.80	15.63	15.10	5.21	5.47	9.64	6.12	2.34	3.78	16.14
Jasper	5.60	13.59	11.63	19.36	5.60	6.13	6.66	6.48	2.04	5.15	17.76
Madison	5.28	14.72	13.06	18.06	5.83	6.67	6.67	3.89	4.72	5.28	15.82
Marion	4.84	12.56	17.00	18.10	6.40	4.45	7.10	7.64	1.87	4.29	15.75
Polk	6.36	10.03	16.66	13.71	8.15	6.13	4.50	6.89	1.46	2.62	23.49
Story	6.14	9.95	17.74	15.42	7.13	3.98	7.96	6.97	2.32	3.65	18.74
Warren	6.70	10.95	16.26	15.41	6.16	7.01	4.99	0.85	2.55	4.57	24.55
DISTRICT	6.00	11.64	16.53	16.12	6.17	5.72	6.24	6.27	1.90	3.72	19.69

In computing the relationship between students' desired participation in exploration activities and in preparatory experiences, a correlation coefficient of .78 was derived. For the most part, this would indicate that students' desire for exploration activities have a fairly high positive relationship to desired preparatory coursework.

The ten pre-selected curriculum areas included in the survey were: Electronics, Engine Mechanics, Health Aides, Office Education, Law Enforcement, Building Trades, Agri-Business, Retail Sales, Machine Operations and Truck Driving. These curriculum areas were recommended in part by the Advisory Committee, and in part by college administrative staff.

It is of special concern to note that the frequency of student response indicating a desire for some other exploratory or preparatory offering than those listed was fairly high. Over ten (10)% of the desired exploration activities and nearly 20% of the preparatory learning experience responses were indicated as "Other". A combined listing by frequency of appearance of "Other" responses appears in the Appendix.

WOMEN'S NEEDS SURVEY

The needs assessment phase of this project did not limit itself solely to specific-purpose studies of the past, such as DMACC manpower needs surveys and the CENIS project.

Also included are abstracts from a study of much wider scope, the WOMEN'S NEEDS SURVEY: THE POST-SECONDARY EDUCATIONAL AND FACILITY NEEDS OF WOMEN IN DES MOINES, IOWA. That project, funded by a Title I grant of the Higher Education Facilities Act and conducted by the Des Moines Area Consortium for Higher Education, had as one point of focus the

objective of surveying the educational needs and opportunities available to women in community development neighborhoods.

Findings of this study include the following:

(1) If all women educationally eligible to seek admission to higher education did so, as many as 58% of the Des Moines women (62,000) could be included.

(2) Not all women, however, desire more education or training. More than half (55%) said they would attend if a neighborhood center, financing, and other help were available. Most willing to return to school were either among the young, poorly educated women with children, or were middle-aged women with high school education only.

(3) About 42% of the women surveyed withdrew from school before graduation. Marriage, lack of funds, children, and employment kept these persons from returning to school.

(4) Women need financial assistance to return to school. For most this would require tuition expenses, and, for many, reimbursement for personal expenses and time lost from employment.

(5) Information reported by this project shows that as many as 47% of the women are responsible for their own support, and possibly the support of others.

(6) An additional problem identified was the matter of transportation. Although about 2/3 of those surveyed had access to automobile transportation means, many who wanted to enter employment or return to school could not do so because of a lack of transportation.

(7) When given a choice of type of institution at which they might

prefer to continue (or return to) the following were indicated:

(a) community college or trade school	35%
(b) 4 year college	15%
(c) local education center	10%
(d) others	40%

In summary, the women's need survey, although perhaps over-representing Blacks and younger persons, did result in expression by women in interest for continuing education. Nearly one-third would prefer educational and supportive services in neighborhood centers. And, their perceived skills and work aspirations suggest a need for training that would prepare women for jobs in nursing and related fields, for business and secretarial positions, for child-care jobs, and for recreational occupations.

The implications from this study reflect a need for greater career education training options for females, in particular, and for all persons, in general, while still involved in the secondary education system.

Administrator Survey

A portion of this planning study included a survey of secondary school administrators to obtain their reactions as to general needs for input in setting planning directions. An open-ended response technique was applied to the survey which was submitted to 72 school officers in the merged area.

The survey sample was obtained from a table of random numbers by assigning even numbers to principals and odd numbers to superintendents and applying the sequential occurence from the random numbers to an

alphabetical listing of the secondary schools in the merged area.

Two mailings yielded 51 returns for a response rate of 70.1%. Returns were received from 25 of the 30 superintendents for a rate of 83.3%, and from 26 of 42 principals for a return rate of 61.9%.

As would be expected, categorization of the responses from the open-ended survey was not an easy task. In general, the following major groups of responses were noted:

1. A need exists for more career exploration activities within each local district. A number of comments indicated that the college's mobile exploration unit should probably serve individual schools instead of groups of schools at a central location. Recommendations were also submitted to package exploration materials and to use multi-media delivery systems.
2. Administrators issued a plea for more career information materials within their schools, particularly from the college. (It is of interest to note that past college efforts to provide materials have been primarily directed to the guidance offices. It would seem that some school administrators may not be aware of in-house information materials presently available.)
3. Administrators expressed the potential value of the college conducting special purpose in-service workshops and seminars for their vocational education teachers.
4. Generally, those surveyed indicated that they were unable to offer their students all that they wanted to, and thus submitted two recommendations:
    a. That students be allowed to attend (enroll at) DMACC during their junior/senior high school years with credit

applied to both graduation requirements and a post-high school program.

b. That career education be offered within the local school system by the community college for both high school students and as a part of the adult education program.

5. Another major need identified from the administrator's survey was a request for community college consultation and assistance in developing and conducting district needs assessment activities. Superintendents expressed the need for assistance in district-wise planning whereas principals seemed to zero in on the need for assessment in curriculum development.

The administrator survey yielded several major conclusions:

1. Secondary school officers re-affirm the need to continue the development of career exploration activities throughout the college district.
2. Those responding generally are favorable toward the exploration of joint career education efforts between the community college and secondary schools.
3. Secondary schools are seeking assistance from the community college in both planning activities and instructional staff development.

CHAPTER FIVE

FEASIBILITY STUDY MODEL

The preceding chapters have, thus far, presented input variable considerations that should be utilized in conducting a feasibility study related to career education evaluation.

Important components of the feasibility study must encompass a broad scale picture, and consider the following elements:

1. Background - where are we now, what is the present curriculum profile, where are the emphases?
2. Population characteristics - what is the nature of the population in the district, the area, the general region; and what is the outlook for the future in terms of enrollment trends?
3. Manpower assessment - what are the general economic conditions; what skilled needs areas are declining, remaining stable, emerging; what is the marketability of graduates of vocational programs in the region; is there an advantage to training of a specialized nature or can generalized preparation suffice?
4. Student interest - what is the potential for generating classes; are students aware enough of the employment possibilities to "demand" participation?
5. Institutional factors - are fiscal resources available or can they be diverted for program development from other areas of current allocation; is space available, or will new construction or major remodeling be required; are staff available from the present faculty, or must new staff be employed; can present administrative organization adopt new thrusts within the present configuration?

6. Policies and regulations - are there regulations, rules, laws that have an effect on this area of concern; if so, where does the focus of this limitation lie; can it be altered; what commitment does our institution and board have to serving the people of the area?

To more clearly explain the feasibility study process, the conceptual model in Figure 1 should be examined.

When the various input variables have been defined and analyzed, the feasibility study process will begin to exhibit the potential alternative choices available to meet the problem issue.

A most desirable feasible alternative, once selected, then may be implemented.

Application of the Feasibility Study Model

This project, which has as one major focal point the recommendation of an implementation mode design for career program integration throughout the college district, has essentially followed the basic model for a feasibility study.

The general population characteristics drawn from the 1970 census data reflect a slight general increase in population throughout the State of Iowa. The percent of natural increase and birth rates, although still positive, have had a reduction in rate. Thus, the population of the college district is on the increase, however, at a slower rate than past reporting periods.

School enrollment trends indicate that the peak enrollments were

probably reached in the mid-to-late 1960's and that projections show a steadily declining number of school-age children. On the other hand, other population data reflect that substantial numbers of Iowa residents have had no formal "career" education. Therein lies a major task for the education systems of the area and of the state - to provide educational alternatives that will provide both "untrained" persons with the ability to keep pace with the flux of the economy and the advancement of technology, and those yet within the secondary system, the preparatory career education needed for job entry.

Manpower assessment studies from both the college and CENIS sources have defined skilled needs training shortages in a number of general areas. Present economic conditions mandate the re-training and/or up-grading of many present employees to meet the problems inherent in unemployment conditions.

Student interest factors - both immediate graduation intent and formal training goals - have described the occupational clusters toward which curriculum development efforts should be directed. An interface must be developed between student interest and manpower needs. (This issue is being considered on the state level by the CENIS II project of 1975.)

The one set of variables to which this study least easily addressed itself was the set of institutional variables related to finance, facilities, and staff. Table 38 summarized financial characteristics for schools within the college district. It did not, however, indicate which schools could or should consider expansion into new career areas. Analysis of facilities and faculty expertise were considered to be beyond the scope of this project.

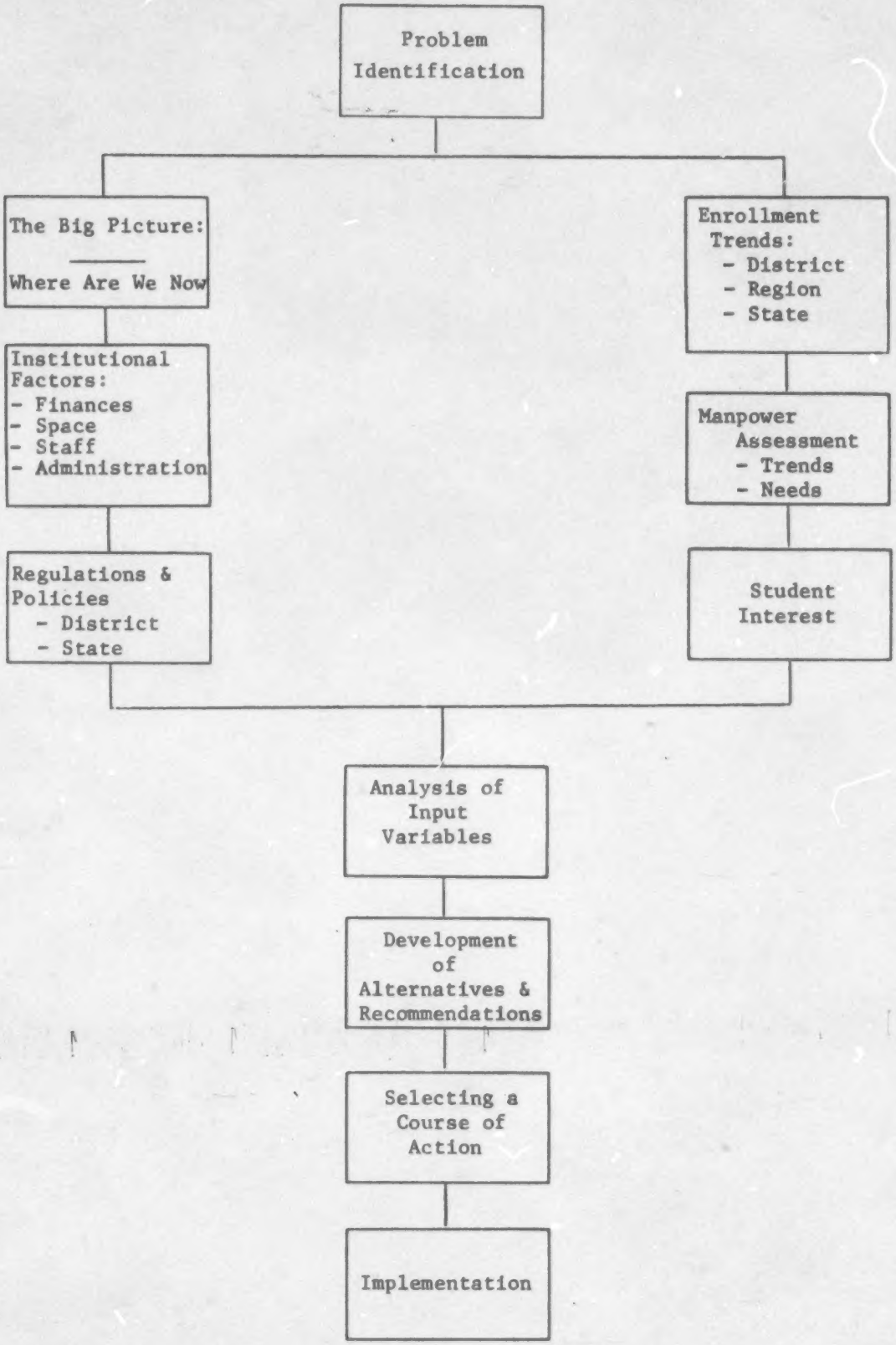
Problem Identification
The Big Picture: Where Are We Now
Enrollment Trends: - District - Region - State
Institutional Factors: - Finances - Space - Staff - Administration
Manpower Assessment - Trends - Needs
Regulations & Policies - District - State
Student Interest
Analysis of Input Variables
Development of Alternatives & Recommendations
Selecting a Course of Action
Implementation

FIGURE 1. CONCEPTUAL MODEL FOR A FEASIBILITY STUDY

Allocation of these institutional resources, in reality, becomes a function of every school district's management team. The decision, for example, to pool resources in a consortium of effort cannot be addressed by this study, since the degree and quantity of institutional resource combinations from a collective set of schools is nearly infinite.

This study has, thus far, defined the need to continue career education service to the residents of the district. Implementation of that service is a function of a succeeding chapter of this report.

CHAPTER SIX

INTEGRATING CAREER EDUCATION SERVICES

Rationale

The starting point for designing the implementation mode for this planning study begins with an assessment of the data reflected by this report document. Primary variables to be considered are the manpower status items, student interests (needs), current base curriculum program, and availability of institutional resources (faculty, space and equipment, and finances).

Local education agencies should conduct feasibility studies to assess local needs and to establish priorities for potential programming. This study process will provide an analysis of the potential for program development and in many smaller districts may probably result in recognition that little if any major activity can take place on a single unit basis. Instead, such a study may indicate the need for a cooperative venture among several schools within reasonable geographic proximity if change is to occur. Should this be the case, a follow up feasibility study should be conducted among the several districts to examine the potential pooling effect of the joint approach.

It is important to note at this point that a total career education effort should not and can not be confined to the secondary and post-secondary levels. A more positive approach is the inclusion of a career education component at each grade level within the entire educational spectrum, commencing with initial school enrollment levels and continuing throughout the hierarchy of education. This report,

for the most part, addressed itself to the secondary level of education in the college district, recognizing that this is the point at which the greatest concentration of career education specialization would probably begin.

Elementary and middle school levels can fairly easily implement career education components via mild curriculum revision, whereas capital outlay and specialized instruction is more likely involved at the secondary level and above.

Upon completion of the feasibility study it becomes crucial to obtain support from the (each) local board of education. Without this commitment neither the chief executive officer of the school nor the administrative team can begin development and implementation efforts. The feasibility report document is a prime tool to utilize in substantiating the need for such a program.

The employees and board of the school district cannot maintain any reasonable degree of progress without community support. Thus, a comprehensive and significant community relations effort must be implemented to gain this backing. This is not an easy task, particularly with the state of current economic conditions. The various publics to whom the school district and its officers are responsible must, therefore, be able to present a proposal exhibiting the extent of unmet needs and the value of the advantages as contrasted to the disadvantages.

Support by the public is not, in and of itself, adequate to insure that a comprehensive career education effort will be successful. A sound and continuing in-service program for staff is needed to support

the board and administrators. This type of activity will also permit a comprehensive approach to the integration of career education into the total curriculum.

The highly successful utilization of career education advisory committees with mixed composition is recommended for the design of local implementation plans. The mix of members should include not only professional educators, but also lay persons - community leaders and "activists". This group can and should establish most of the groundwork for the community relations effort and contribute toward the general direction for career education within the district or districts involved.

Throughout the formative stages, local education units should seek the leadership and assistance of both Department of Public Instrustion consultants and community college personnel. It is logical to assume that initial activities will be directed and sponsored by present staff personnel. Once the district has committed itself to an emphasis directed toward the development of a comprehensive career education component of the curriculum, a most legitimate move would be the employment of a career education coordinator.

The major thrust of career education implementation must of necessity become a two-pronged effort. The first segment, that of initiating an elementary school program, must be concurrent with another effort, the implementation of preparatory training. Districts can ill-afford to delay the implementation of secondary level programming until a given class group has advanced through the elementary and middle school curricula. Although some implementation programs progressively

introduce career offerings on a sequential K-3, 4-6, 7-9, 10-12 basis, those students now entering secondary levels have immediate preparatory needs that must be considered.

A dual approach as suggested in the preceding paragraph not only serves those with immediate needs, but also minimizes the time frame in which a total curriculum re-direction may occur. Thus it is suggested that the following process occur in the integration of career education throughout the merged area district.

The Integration Plan

FIRST YEAR:

Conduct of the planning study by the Des Moines Area Community College.

SECOND YEAR:

1. Local education units to conduct feasibility studies, including curriculum analysis, manpower labor demand analysis, student interest, and institutional resource analysis.
2. Establishment of lay advisory group for career education direction setting.
3. Initiation of a community relations effort to "sell" the concept of a total career education curriculum concept.
4. Conducting in-service for total faculty, special emphasis on lower elementary levels.
5. Employment of a career education coordinator.

THIRD YEAR:

1. Initiation of K-3 career awareness program and concurrent expansion/revision of secondary program.

2. In-service for total staff, special emphasis for upper elementary faculty.

FOURTH YEAR:

1. Initiation of upper elementary career awareness program and continued modification of secondary curriculum.
2. Continued in-service for total staff and special emphasis with "junior high" program.

FIFTH YEAR:

1. Implementation of junior-high (middle school) career exploration program and continued in-service for total staff.
2. Continued modification of secondary program.
3. Analysis of needs of the local post-secondary community and development of programs to meet their needs.

CHAPTER SEVEN

PRESENT EFFORTS IN THE MERGED AREA

Two major efforts are underway in the Des Moines Area Community College District that closely correlate with portions of the integration recommendations set forth in Chapter Six.

Local schools, public and private, within two geographic regions, Carroll and Marion counties, are establishing through a joint high school-community college effort, "High School Vocational School" career education units. The major coordinating efforts are being directed from the Office of the Assistant Superintendent of Instruction at the college.

Planning stages parallel components of the feasibility study process. Lay advisory groups have been established to assist in the "community survey" examination of the manpower needs assessment portion of the planning process. Leadership and general direction are offered on a consultative basis from DMACC staff personnel.

High school personnel, particularly counselors, are engaged in re-assessing student interests and intents. Their activities are, in essence, an update of the student interest survey conducted in the initial stages of this project.

Local school financing, space, and related concerns are being overseen by local units.

Career education program chairmen and instructional department personnel from DMACC are assisting the local districts in curriculum development efforts.

A number of data summaries and requests for surveys for the Carroll and Marion County projects were obtained from the staff unit responsible for this project as a direct result of initial project efforts. Thus, even prior to completion, this project has had value for career education planning efforts within the college district.

CHAPTER EIGHT

DISCUSSION

In examining this report in a collective, total-report configuration, a number of key factors may be highlighted.

Historically, increased awareness of career education programming in vocational and technical areas led to the passage of legislation that permitted the evolution of the comprehensive community colleges and area vocational-technical schools of today's Iowa. These institutions, and particularly the Des Moines Area Community College, have been success stories, not only for the State and for the individual institutions, but also for the students who have enrolled in them.

These institutions have filled the gap that previously existed between secondary and university levels of education. However, the two-year college system has not been able to meet all of the training needs for persons seeking job entry preparation requiring less than a baccalaureate degree. Some of that training responsibility is falling back upon the secondary school systems, many of which have thus far, provided only limited vocational career education, if any at all.

The type of secondary education which formerly was needed to prepare persons to enter the university model of education has changed. This phenomena, whether attributed to the impact of the community college concept, or to the changing perceptions of the general populations' value structure as related to the world of work, is causing force vectors resulting in the demand for curriculum reform.

As a result of the forces creating the demand for change, it was recognized that a model was needed that both secondary and post-secondary school officers could use for systematically evaluating the reform needed to best serve their community sectors. From that recognition grew this planning study.

Optimistically, the total Merged Area XI, the Des Moines Area Community College District, is increasing in population. Unfortunately, that growth is limited to a fairly small geographic proportion of the district. On the other hand, the projected number of students in each county and in the total district is facing decline in the next several years as is evidenced by the predictions computed and reported in Chapter Three.

That factor alone is enough to make school officials realize that an immediate evaluation of present educational programming should be conducted. Fewer students placed in programs with continued emphasis levels will result in higher per unit costs. Coupled to this is the changing emphasis by the student population concerning their preparation for post-high school objectives. More and more students are accepting the alternative of other than university training while they still recognize that some specialization is required for successful occupational entry.

Thus, the issue becomes one of evaluating and reallocating resources to best meet the needs of the educational process consumer.

Chapter Three of this report has presented a global look, the big picture, of the resources within the merged area and what seems to be happening to them in trends.

Unemployment in some areas has increased as much as 430% in just five years, thus creating increased pressure on the educational systems to provide alternatives to non-working members of the population.

The school curriculum analysis reflects that nearly 70% of all offerings are included toward traditional college preparatory, yet numbers of students served in some programs in some schools raise questions as to the wisdom of continued efforts in those directions.

Enrollment trends are pointed downward in all areas, thus bringing to focus the curriculum-plan and the customers-to-be-served issue.

To address these issues as well as others not discussed in depth (financial resources, space and equipment factors, teacher approval and certification), an in-depth planning program is required. Such a study begins with an assessment of the "big picture", the present emphasis, the resources with which a district has to work, and then progresses into a needs assessment phase.

Needs assessment examines and assists in setting the long term goals and objectives of the school system. It considers the great variety of variables that affect planning decisions. Included are such variables as special needs groups, potential for employment market placement, assessment of student interests and objectives, and the "grit-feeling" perceptions of experienced school leaders.

Needs assessment and resource variables, when blended, offer the foundation needed for constructing directions for the educational program of the school system. The process thus completed, the feasibility study, may indeed indicate no change is needed, or at

the other end of the continuum that extensive change is appropriate. Such a study may also indicate that no local change is possible, but that a consortium effort may be a better alternative.

This study, in addition to presenting data that local units can utilize in basic planning and forecasting and in providing a feasibility model to follow in conducting a planning study, also obtained input from school administrators concerning joint community college-secondary school system efforts.

Administrators requested an extension of college efforts in their local districts in the following areas: expanded assistance in career exploration, presentation of workshops for vocational teachers, cross-enrollment situations for high school students in college curricula, and assistance in local planning efforts.

Vocational and technical career education provides a dynamic dimension to the total educational process in the merged area. Without a systematic planning technique, however, local and district-wide efforts at providing this dimension will be ill-directed. This planning study has attempted to provide that sense of direction so crucial to success in career education efforts.

CHAPTER NINE

LIMITATIONS AND NEED FOR FURTHER STUDY

Student Survey

All of the school systems within the Des Moines Area Community College district did not participate in the student survey. Excluded from the survey was the Des Moines Independent School District. The primary reason for this was the existance of a comprehensive career education preparatory curriculum available within its local district, and the inherent characteristics that distinguish that district from the "typical" system in Iowa in the more rural areas.

Other schools either chose not to participate, or did not do so because of the approaching end of the spring semester and the delay in receipt of survey materials. Of the 68 public and private school systems in the college district, 53 or 77.9 percent participated in the survey to some extent.

Problems were encountered with coding returns from several school districts due to multiple responses by students when only single responses were requested. This situation affected individual school analysis, but caused no major problems for the study in general.

Financial Data

Financial data available was limited to the Department of Public Instruction reports that aggregated all school district costs into a per pupil factor. This is perhaps adequate for inter-district comparisons, but it does not reflect cost per program, or cost per grade level, etc. Thus, more finite data are needed on a more detailed basis.

Cost analysis studies would be important in assessing a district's ability to change programming by addition or modification.

School Personnel

This study made no effort to analyze the certification and approval status of present school district employees. In other words, only through the included curriculum analysis could any assumptions be made about the instructional expertise of currently employed teachers. Analysis of approval statements and academic preparedness would be needed in considering the implications for staffing in curriculum modification efforts.

Facilities

Another major limitation relates to analysis of school facilities for their capacity to absorb new programs. A project of this nature would also be required in the feasibility study process. The lack of space and the implied need for further capital expenditure would, in many districts, override the possibility of adding new programs in a school district. This phase of a feasibility study should perhaps be delayed until after initial curriculum emphasis areas are defined, since selected programs would have varying space and equipment needs.

Occupational Definition

This study based tables and comments on the fifteen occupational clusters defined by the U.S. Office of Education. Both CENIS data and student survey responses were arbitrarily placed within one of the fifteen clusters for compatibility of reporting.

Special Needs

A comprehensive study should be made of the identifiable special needs populations in the area and state. It should be more encompassing than merely an enumeration of those with special needs. A particular group needing follow-up attention are those who have left secondary school prior to graduation.

Teacher Qualification

A need exists to analyze the adequacy of teacher preparation for career education. Included should be the competencies required for training others to enter the labor market; i.e. are vocational teachers of today really capable of preparing students to enter the labor force?

Post-High School Needs

The re-training and occupational upgrading needs of post-high school persons should be examined. If schools are truly to become community schools, they need to look beyond the 5 to 18 year group and to analyze how their district can serve all of the local population.

CHAPTER TEN

DISSEMINATION OF THE STUDY

Each of the school districts in the merged area received one (1) copy of the study. Each of the other community colleges and area vocational-technical schools in Iowa received copies also. Additional copies are available from the Department of Public Instruction, Career Education Division.

SELECT LIST OF REFERENCES

1. Burden, Carol A. Women's Needs Survey. Higher Education Facilities Commission of the State of Iowa. Unpublished Report. Volume 1. (Circa 1972).

2. Des Moines Area Community College. Profile of Area XI - Special Needs Population. Ankeny, Iowa, author. 1975.

3. Des Moines Area Community College. Student Personnal Services Annual Report 1973-74. Ankeny, Iowa, author. 1974.

4. Des Moines Area Community College. This is Des Moines Area Community College 1974. Ankeny, Iowa, author. 1974/

5. Iowa Department of Public Instruction. Iowa Public and Non-Public School Enrollment. Des Moines, Iowa, author. (Several reports) 1969-1974.

6 Iowa Department of Public Instruction. Iowa Public School Data: Administration and Finance. Des Moines, Iowa, author. 1975.

7. Iowa Department of Public Instruction. Population/Enrollment Trends in Iowa and Implications for Iowa's Area Schools. Des Moines, Iowa, author. 1973.

8. Iowa Department of Public Instruction. Public School Curriculum 1973-74. Des Moines, Iowa, author. 1974.

9. Iowa Department of Public Instruction. UPDATE 1974. Des Moines, Iowa, author. 1974.

10. U.S. Bureau of the Census. Population, 1, Part 17. 1972.

APPENDIX

ABSTRACT

CONTRACTING AGENCY: Des Moines Area Community College
2006 Ankeny Boulevard
Ankeny, Iowa 50021

PROJECT OFFICER: Ronald E. McClurg
Research Analyst
Des Moines Area Community College

PROJECT TITLE: Needs for Integrating Career Education Services within Des Moines Area Community College District

NEEDS:

1. Examine priorities for development of career programs within Des Moines Area Community College District
2. Assess current direction and determine new trends for development of career education within school districts encompassed by the Des Moines Area Community College.
3. Develop a recommended delivery system for development experiences throughout the Merged Area XI.

OBJECTIVES:

1. Determine career education needs, including exploration, preparatory, and supplementary needs, for communities not within commuting distance of existing Des Moines Area Community College campus.
2. Develop a feasibility study model for establishing career education, exploratory, preparatory, and supplementary opportunities within outlying communities.
3. Development of a planning approach for meeting the needs so identified.
4. Make recommendations for methods of establishing programs that will meet the needs existing in the community.
5. Develop a schedule of implementation.
6. Develop procedures for program evaluation.
7. Develop a procedure for data collection and analysis with possibilities for utilization in other areas of the state.

ABSTRACT

PROCEDURES:

1. Develop information gathering scheme
2. Conduct surveys
    a. Students
    b. Administrators
3. Compile and analyze data
4. Identify specific areas of need
    a. Secondary school needs
    b. Secondary student needs
    c. Community needs
    d. Agencies/client needs
5. Formulate plan of action
6. Formulate advisory committee
7. Make recommendations for implementation
8. Implementation phase

PROJECT DATES: March 1, 1974 to February 28, 1975

PROJECT FUNDS REQUESTED: $9,671

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Mr. Cletus Windschitl, Counselor
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Carroll, Iowa 51401

AREA XI SCHOOL DISTRICTS

BY COUNTIES

AUDUBON

Audubon Community School District
Audubon, Iowa 50025

Exira Community School District
Exira, Iowa 50076

BOONE

Boone Community School District
Boone, Iowa 50036

Grand Community School District
Boxholm, Iowa 50040

Madrid Community School District
Madrid, Iowa 50156

Ogden Community School District
Ogden, Iowa 50212

United Community School District
Boone, Iowa 50036

CARROLL

Carroll Independent School District
Carroll, Iowa 51401

Coon Rapids Community School District
Coon Rapids, Iowa 50058

Glidden-Ralston Comm. School District
Glidden, Iowa 51443

Kuemper High School
Carroll, Iowa 51401

Manning Community School District
Manning, Iowa 51455

St. Bernard High School
Breda, Iowa 51436

DALLAS

Adel Comminity School District
Adel, Iowa 50003

Central Dallas Comm. School District
Minburn, Iowa 50167

Dallas Community School District
Dallas Center, Iowa 50063

Dexfield Community School District
Redfield, Iowa 50233

Perry Community School District
Perry, Iowa 50220

Van Meter Community School District
Van Meter, Iowa 50261

Waukee Community School District
Waukee, Iowa 50263

Woodward-Granger Community Sch. District
Woodward, Iowa 50276

GUTHRIE

Adair-Casey Comm. School District
Adair, Iowa 50002

Bayard Comm. School District
Bayard, Iowa 50029

Guthrie Center Comm. School District
Guthrie Center, Iowa 50115

Panora-Linden Comm. School District
Panora, Iowa 50216

Stuart-Menlo Comm. School District
Stuart, Iowa 50250

Yale-Jamaica-Bagley Comm. Sch. District
Bagley, Iowa 50026

JASPER

Baxter Comm. School District
Baxter, Iowa 50028

Colfax Comm. School District
Colfax, Iowa 50054

Lynnville-Sully Comm. School District
Sully, Iowa 50251

Mingo Comm. School District
Mingo, Iowa 50168

New Monroe Comm. School District
Monroe, Iowa 50170

Newton Comm. School District
Newton, Iowa 50208

Prairie City Comm. School District
Prairie City, Iowa 50228

MADISON

Earlham Comm. School District
Earlham, Iowa 50072

Interstate 35 Comm. School District
Truro, Iowa 50257

Winterset Comm. School District
Winterset, Iowa 50273

MARION

Knoxville Comm. School District
Knoxville, Iowa 50138

Melcher-Dallas Comm. School District
Melcher, Iowa 50163

Pella Community School District
Pella, Iowa 50219

Pleasantville Comm. School District
Pleasantville, Iowa 50225

Pella Christian High School
Pella, Iowa 50219

Twin Cedars Comm. School District
Bussey, Iowa 50044

POLK

Ankeny Comm. School District
Ankeny, Iowa 50021

Bondurant-Farrar Comm. School District
Bondurant, Iowa 50035

Des Moines Ind. Comm. School District
Des Moines, Iowa 50307

Johnston Comm. School District
Johnston, Iowa 50131

North Polk Comm. School District
Alleman, Iowa 50007

Saydel Cons. School District
Des Moines, Iowa 50313

Southeast Polk Comm. School District
Runnels, Iowa 50237

Urbandale Comm. School District
Urbandale, Iowa 50322

West Des Moines Comm. School District
West Des Moines, Iowa 50265

Dowling High School
West Des Moines, Iowa 50265

STORY

Ames Community School District
Ames, Iowa 50010

Ballard Comm. School District
Huxley, Iowa 50124

Collins Comm. School District
Collins, Iowa 50055

Colo Comm. School District
Colo, Iowa 50056

Gilbert Comm. School District
Gilbert, Iowa 50105

Maxwell Comm. School District
Maxwell, Iowa 50161

Nesco Community School District
Zearing, Iowa 50278

STORY, Cont.

Nevada Comm. School District
Nevada, Iowa 50201

Oak Park High School
Nevada, Iowa 50201

Roland-Story Comm. School District
Story City, Iowa 50248

WARREN

Carlisle Comm. School District
Carlisle, Iowa 50047

Indianola Comm. School District
Indianola, Iowa 50125

Martensdale-St. Marys Comm. School District
Martensdale, Iowa 50160

Norwalk Community School District
Norwalk, Iowa 50211

Southeast Warren Comm. School District
Liberty Center, Iowa 50145

SCHOOLS PARTICIPATING IN THE STUDENT SURVEY

AND NUMBER OF RESPONDENTS

School	Number of Respondents
Adair Casey	134
Adel	261
Ankeny	593
Audubon	310
Bayard	74
Baxter	92
Bondurant-Farrar	83
Boone	403
Carlisle	312
Carroll	228
Colo	40
Colfax	138
Coon Rapids	128
Dallas Community	123
Dexfield	113
Dowling (West Des Moines)	1031
Earlham	109
Grand Community	63
Guthrie Center	179
Indianola	697
Interstate-35	54
Knoxville	387
Kuemper (Carroll)	675
Lynnville-Sully	112
Madrid	188
Martensdale-St. Mary's	44
Maxwell	71
Melcher-Dallas	137
Nevada	258
New Monroe	149
Newton	533
North Polk	154
Oak Park (Nevada)	24
Ogden	168
Panora-Linden	133
Pella	341
Pella Christian	210
Perry	410
Pleasantville	157
Prairie City	139
Roland-Story	237
Saydel	289
Southeast Polk	117
St. Bernard (Breda)	87
Stuart-Menlo	183
Twin Cedars	118
United Community	87
Urbandale	1128
Valley (West Des Moines)	834
Van Meter	77
Waukee	105
Winterset	221
Y-J-B	94

MAY, 1974

DES MOINES AREA COMMUNITY COLLEGE
ANKENY, IOWA

STUDENT INTEREST SURVEY

I. STUDENT NAME: _____
(LAST) (FIRST) (MIDDLE)

NAME OF SCHOOL: _____ GRADE: _____ SEX: M F

II. PURPOSE: This survey is jointly being conducted by the Des Moines Area Community College and your school in order to assess the career education needs and possible ways of delivering services in career education.

III. CAREER EXPECTATIONS AND EXPERIENCES:

1. What vocational education experiences have you had to date:

_____ Distributive Education
_____ Trade & Industrial
_____ Health Occupations
_____ Vocational Agriculture
_____ Office Occupations
_____ Work Experience Program
_____ Other _____

2. What do you intend to do upon graduation from high school?

_____ (a) Enter work force immediately. What Job _____
_____ (b) Enter training for skilled-type job. If yes,
What School _____ What Job _____
_____ (c) Attend four-year college. If yes,
What School _____ What Area of Education _____
_____ (d) Other _____

FOR INFORMATION ON QUESTIONS 3 and 4 SEE BACK SIDE

IV. EXPLORATORY: Activities in career education are designed for you to try out jobs to learn more about the type of work done (this is a "hands-on" experience where you actually do the job). You not only learn whether you like this kind of work but also if you have the skills and aptitude to be successful in it.

3. Please circle the exploration areas listed on the back side of this sheet (Section VI) that you would like to explore. Circle as many as you like.

A B C D E F G H I J K

V. PREPARATORY: Courses are designed to teach skills in a particular field of work that will either lead directly to employment in that field or, after graduation, might give you advanced standing at the Des Moines Area Community College toward additional training.

4. Please circle the letter indicating your first choice, second choice, and third choice of courses listed on the back side of this sheet (Section VI) that you would be interested in taking while still in high school.

First Choice: A B C D E F G H I J K

Second Choice: A B C D E F G H I J K

Third Choice: A B C D E F G H I J K

VI. OCCUPATIONAL AREAS: The following are occupational areas or courses. Read them carefully before answering the questions that follow the descriptions of occupations.

A. Electronics - Provides students with a well-rounded knowledge of the fundamentals of electricity. Students learn the meaning of voltage, current, resistance and power. This course can lead to employment in appliance repair, electrical wiring, industrial electronics and electronic repair (additional training may be required for specific jobs).

B. Engine Mechanics - Includes engine design and construction, tools and equipment for repair, safety, engine maintenance and lubrication and fuels. This course can lead to careers in auto mechanics, service station mechanics, motorcycle, marine and small engine mechanics.

C. Health Aids - Students study mental health, first aid, nutrition, human anatomy, personal hygiene and preventive medicine. Employment possibilities are nurse's aide, hospital orderly, child care aide, and day care aide.

D. Office Education - Provides students with knowledge of typewriting, adding machines, calculators, transcribing machines and secretarial procedures. Employment possibilities are clerk typist, file clerk, receptionist and secretary.

E. Law Enforcement - Provides educational experiences in the theory and methods of modern law enforcement. It covers criminal law, criminal evidence, criminal investigation and police operations.

F. Building Trades - Provides study and experience in gaining the knowledge needed to enter the construction fields. Emphasis is placed on carpentry, concrete and masonry trades. Possibilities for employment include carpenter, brick layer, concrete worker, and with employers such as lumber yards, architects, and contractors.

G. Agri-Business - Students will study soils, grains, fertilizers, seeds, machinery and farm problems. Employment possibilities exist with feed and seed companies, elevators, farmers, greenhouse, etc.

H. Retail Sales - The student studies the principles of marketing, merchandising, advertising, sales promotion and sales techniques. Some employment possibilities are sales clerk, assistance manager, window display, and fashion merchandising.

I. Machine Operators - Students will learn set-up and operation of common industrial equipment and expert employment as machine operators in a variety of industry.

J. Truck Driving - This course will open opportunities in city delivery and [redacted] hauling. With additional experience one could expect to become an over-the-road driver.

K. Other _____

_____

STUDENTS RESPONDING :	NINTH	TENTH	ELEVENTH	TOTAL
	38.2 % (36)	26.5 % (25)	35.1 % (33)	0.0 % (94)
VOCATIONAL EXPERIENCE TO DATE :	**NINTH**	**TENTH**	**ELEVENTH**	**TOTAL**
DISTRIBUTION EDUCATION	0.0 % (0)	0.0 % (0)	21.2 % (7)	7.4 % (7)
TRADE AND INDUSTRIAL	2.7 % (1)	36.0 % (9)	24.2 % (8)	19.1 % (18)
HEALTH OCCUPATIONS	0.0 % (0)	0.0 % (0)	6.0 % (2)	2.1 % (2)
VOCATIONAL AGRICULTURE	2.7 % (1)	0.0 % (0)	0.0 % (0)	1.0 % (1)
OFFICE OCCUPATIONS	0.0 % (0)	0.0 % (0)	21.2 % (7)	7.4 % (7)
WORK EXPERIENCE	0.0 % (0)	4.0 % (1)	0.0 % (0)	1.0 % (1)
OTHER (INCLUDING NO RESPONSE)	94.4 % (34)	60.0 % (15)	27.2 % (9)	61.7 % (58)
GRADUATION PLANS : ENTER WORK FORCE	**NINTH**	**TENTH**	**ELEVENTH**	**TOTAL**
AGRI-BUSINESS & NATURAL RESOURCES	16.6 % (6)	12.0 % (3)	15.1 % (5)	14.8 % (14)
ENVIRONMENT	0.0 % (0)	0.0 % (0)	0.0 % (0)	0.0 % (0)
COMMUNICATION & MEDIA	0.0 % (0)	0.0 % (0)	0.0 % (0)	0.0 % (0)
CONSTRUCTION	2.7 % (1)	20.0 % (5)	6.0 % (2)	8.5 % (8)
CONSUMER & HOMEMAKING	0.0 % (0)	0.0 % (0)	0.0 % (0)	0.0 % (0)
FINE ARTS & HUMANITIES	0.0 % (0)	0.0 % (0)	0.0 % (0)	0.0 % (0)
HEALTH OCCUPATIONS	0.0 % (0)	4.0 % (1)	6.0 % (2)	3.1 % (3)
HOSPITALITY & RECREATION	0.0 % (0)	0.0 % (0)	0.0 % (0)	0.0 % (0)
MANUFACTURING	0.0 % (0)	0.0 % (0)	0.0 % (0)	0.0 % (0)
MARINE SCIENCE OCCUPATIONS	0.0 % (0)	0.0 % (0)	0.0 % (0)	0.0 % (0)
MARKETING & DISTRIBUTION OCCUPATIONS	0.0 % (0)	0.0 % (0)	0.0 % (0)	0.0 % (0)
BUSINESS & OFFICE OCCUPATIONS	13.8 % (5)	8.0 % (2)	9.0 % (3)	10.6 % (10)
PERSONAL SERVICES	0.0 % (0)	0.0 % (0)	0.0 % (0)	0.0 % (0)
PUBLIC SERVICE	0.0 % (0)	0.0 % (0)	0.0 % (0)	0.0 % (0)
TRANSPORTATION	2.7 % (1)	0.0 % (0)	3.0 % (1)	2.1 % (2)
OTHER	0.0 % (0)	0.0 % (0)	0.0 % (0)	0.0 % (0)
NO RESPONSE	63.8 % (23)	56.0 % (14)	60.6 % (20)	60.6 % (57)
SCHOOL FOR SKILLED TRAINING :	**NINTH**	**TENTH**	**ELEVENTH**	**TOTAL**
DMACC	2.7 % (1)	4.0 % (1)	15.1 % (5)	7.4 % (7)
ANOTHER COMMUNITY COLLEGE	0.0 % (0)	0.0 % (0)	0.0 % (0)	0.0 % (0)
TRADE OR PROPRIETARY SCHOOL	5.5 % (2)	0.0 % (0)	0.0 % (0)	2.1 % (2)
OTHER (INCLUDING APPRENTICESHIP)	0.0 % (0)	0.0 % (0)	0.0 % (0)	0.0 % (0)
UNDECIDED	0.0 % (0)	0.0 % (0)	0.0 % (0)	0.0 % (0)
NO RESPONSE	91.6 % (33)	96.0 % (24)	84.8 % (28)	90.4 % (85)

SAMPLE

ENTER SKILLED TRAINING : JOB TYPE	NINTH	TENTH	ELEVENTH	TOTAL
AGRI-BUSINESS & NATURAL RESOURCES	0.0 % (0)	4.0 % (1)	0.0 % (0)	1.0 % (1)
ENVIRONMENT	0.0 % (0)	0.0 % (0)	3.0 % (1)	1.0 % (1)
COMMUNICATION & MEDIA	0.0 % (0)	0.0 % (0)	0.0 % (0)	0.0 % (0)
CONSTRUCTION	8.3 % (3)	0.0 % (0)	3.0 % (1)	4.2 % (4)
CONSUMER & HOMEMAKING	0.0 % (0)	0.0 % (0)	0.0 % (0)	0.0 % (0)
FINE ARTS & HUMANITIES	0.0 % (0)	0.0 % (0)	0.0 % (0)	0.0 % (0)
HEALTH OCCUPATIONS	0.0 % (0)	0.0 % (0)	6.0 % (2)	2.1 % (2)
HOSPITALITY & RECREATION	0.0 % (0)	0.0 % (0)	0.0 % (0)	0.0 % (0)
MANUFACTURING	0.0 % (0)	0.0 % (0)	0.0 % (0)	0.0 % (0)
MARINE SCIENCE OCCUPATIONS	0.0 % (0)	0.0 % (0)	0.0 % (0)	0.0 % (0)
MARKETING & DISTRIBUTION OCCUPATIONS	0.0 % (0)	0.0 % (0)	0.0 % (0)	0.0 % (0)
BUSINESS & OFFICE OCCUPATIONS	2.7 % (1)	0.0 % (0)	3.0 % (1)	2.1 % (2)
PERSONAL SERVICES	0.0 % (0)	0.0 % (0)	0.0 % (0)	0.0 % (0)
PUBLIC SERVICE	0.0 % (0)	0.0 % (0)	0.0 % (0)	0.0 % (0)
TRANSPORTATION	2.7 % (1)	0.0 % (0)	3.0 % (1)	2.1 % (2)
OTHER	0.0 % (0)	0.0 % (0)	0.0 % (0)	0.0 % (0)
NO RESPONSE	86.1 % (31)	96.0 % (24)	81.8 % (27)	87.2 % (82)

ATTEND FOUR YEAR COLLEGE	NINTH	TENTH	ELEVENTH	TOTAL
REGENTS INSTITUTION	0.0 % (0)	8.0 % (2)	9.0 % (3)	5.3 % (5)
PRIVATE 4 YEAR	0.0 % (0)	0.0 % (0)	0.0 % (0)	0.0 % ( )
OUT OF STATE	0.0 % (0)	0.0 % (0)	0.0 % (0)	0.0 % ( )
UNDECIDED	0.0 % (0)	0.0 % (0)	0.0 % (0)	0.0 % ( )
NO RESPONSE	0.0 % (36)	92.0 % (23)	90.9 % (30)	94.6 % ( )

FIELD OF STUDY : 4 YEAR COLLEGE	NINTH	TENTH	ELEVENTH	TOTAL
AGRI-BUSINESS & NATURAL RESOURCES	0.0 % (0)	4.0 % (1)	6.0 % (2)	3.1 % (3)
ENVIRONMENT	0.0 % (0)	0.0 % (0)	0.0 % (0)	0.0 % (0)
COMMUNICATION & MEDIA	0.0 % (0)	0.0 % (0)	0.0 % (0)	0.0 % (0)
CONSTRUCTION	0.0 % (0)	0.0 % (0)	0.0 % (0)	0.0 % (0)
CONSUMER & HOMEMAKING	0.0 % (0)	0.0 % (0)	0.0 % (0)	0.0 % (0)
FINE ARTS & HUMANITIES	0.0 % (0)	0.0 % (0)	0.0 % (0)	0.0 % (0)
HEALTH OCCUPATIONS	0.0 % (0)	0.0 % (0)	0.0 % (0)	0.0 % (0)
HOSPITALITY & RECREATION	0.0 % (0)	0.0 % (0)	0.0 % (0)	0.0 % (0)
MANUFACTURING	0.0 % (0)	0.0 % (0)	0.0 % (0)	0.0 % (0)
MARINE SCIENCE OCCUPATIONS	0.0 % (0)	0.0 % (0)	0.0 % (0)	0.0 % (0)
MARKETING & DISTRIBUTION OCCUPATIONS	0.0 % (0)	0.0 % (0)	0.0 % (0)	0.0 % (0)
BUSINESS & OFFICE OCCUPATIONS	0.0 % (0)	4.0 % (1)	0.0 % (0)	1.0 % (1)
PERSONAL SERVICES	0.0 % (0)	0.0 % (0)	0.0 % (0)	0.0 % (0)
PUBLIC SERVICE	0.0 % (0)	0.0 % (0)	0.0 % (0)	0.0 % (0)
TRANSPORTATION	0.0 % (0)	0.0 % (0)	0.0 % (0)	0.0 % (0)
OTHER	0.0 % (0)	0.0 % (0)	0.0 % (0)	0.0 % (0)
NO RESPONSE	0.0 % (36)	92.0 % (23)	93.9 % (31)	95.7 % (90)

OTHER PLANS :	NINTH	TENTH	ELEVENTH	TOTAL
MARRIAGE	5.5 % (2)	0.0 % (0)	0.0 % (0)	2.1 % (2)
UNDECIDED	0.0 % (0)	0.0 % (0)	0.0 % (0)	0.0 % (0)
NO RESPONSE	94.4 % (34)	0.0 % (25)	0.0 % (33)	97.8 % (92)

DESIRED EXPLORATION AREAS :	NINTH	TENTH	ELEVENTH	TOTAL
ELECTRONICS	6.1 % (6)	4.2 % (3)	6.3 % (6)	5.7 % (15)
ENGINE MECHANICS	14.2 % (14)	11.4 % (8)	12.7 % (12)	12.9 % (34)
HEALTH AIDS	10.2 % (10)	11.4 % (8)	12.7 % (12)	11.4 % (30)
OFFICE EDUCATION	12.2 % (12)	11.4 % (8)	11.7 % (11)	11.8 % (31)
LAW ENFORCEMENT	3.0 % (3)	4.2 % (3)	4.2 % (4)	3.8 % (10)
BUILDING TRADES	3.0 % (3)	8.5 % (6)	9.5 % (9)	6.8 % (18)
AGRI-BUSINESS	8.1 % (8)	11.4 % (8)	8.5 % (8)	9.1 % (24)
RETAIL SALES	9.1 % (9)	4.2 % (3)	8.5 % (8)	7.6 % (20)
MACHINE OPERATORS	10.2 % (10)	11.4 % (8)	6.3 % (6)	9.1 % (24)
TRUCK DRIVING	10.2 % (10)	14.2 % (10)	10.6 % (10)	11.4 % (30)
OTHER	13.2 % (13)	7.1 % (5)	8.5 % (8)	9.9 % (26)

HIGH SCHOOL PREP COURSES : 1ST CHOICE	NINTH	TENTH	ELEVENTH	TOTAL
ELECTRONICS	8.3 % (3)	8.0 % (2)	3.0 % (1)	6.3 % (11)
ENGINE MECHANICS	11.1 % (4)	4.0 % (1)	6.0 % (2)	7.4 % (11)
HEALTH AIDS	13.8 % (5)	20.0 % (5)	12.1 % (4)	14.8 % (14)
OFFICE EDUCATION	22.2 % (8)	8.0 % (2)	9.0 % (3)	13.8 % (13)
LAW ENFORCEMENT	5.5 % (2)	0.0 % (0)	3.0 % (1)	3.1 % (3)
BUILDING TRADES	0.0 % (0)	8.0 % (2)	21.2 % (7)	9.5 % (9)
AGRI-BUSINESS	16.6 % (6)	12.0 % (3)	6.0 % (2)	11.7 % (11)
RETAIL SALES	2.7 % (1)	0.0 % (0)	6.0 % (2)	3.1 % (3)
MACHINE OPERATORS	0.0 % (0)	8.0 % (2)	3.0 % (1)	3.1 % (3)
TRUCK DRIVING	2.7 % (1)	12.0 % (3)	9.0 % (3)	7.4 % (7)
OTHER	16.6 % (6)	20.0 % (5)	21.2 % (7)	19.1 % (18)

HIGH SCHOOL PREP COURSES : 2ND CHOICE	NINTH	TENTH	ELEVENTH	TOTAL
ELECTRONICS	5.7 % (2)	0.0 % (0)	9.0 % (3)	5.3 % (5)
ENGINE MECHANICS	14.2 % (5)	8.0 % (2)	21.2 % (7)	15.0 % (14)
HEALTH AIDS	11.4 % (4)	12.0 % (3)	12.1 % (4)	11.8 % (11)
OFFICE EDUCATION	17.1 % (6)	24.0 % (6)	18.1 % (6)	19.3 % (18)
LAW ENFORCEMENT	0.0 % (0)	4.0 % (1)	0.0 % (0)	1.0 % (1)
BUILDING TRADES	0.0 % (0)	8.0 % (2)	3.0 % (1)	3.2 % (3)
AGRI-BUSINESS	2.8 % (1)	4.0 % (1)	6.0 % (2)	4.3 % (4)
RETAIL SALES	11.4 % (4)	12.0 % (3)	9.0 % (3)	10.7 % (10)
MACHINE OPERATORS	11.4 % (4)	8.0 % (2)	6.0 % (2)	8.6 % (8)
TRUCK DRIVING	17.1 % (6)	16.0 % (4)	12.1 % (4)	15.0 % (14)
OTHER	8.5 % (3)	4.0 % (1)	3.0 % (1)	5.3 % (5)

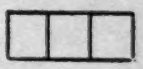
HIGH SCHOOL PREP COURSES : 3RD CHOICE	NINTH	TENTH	ELEVENTH	TOTAL
ELECTRONICS	3.4 % (1)	0.0 % (0)	3.4 % (1)	2.6 % (2)
ENGINE MECHANICS	10.3 % (3)	27.7 % (5)	10.3 % (3)	14.4 % (11)
HEALTH AIDS	6.8 % (2)	5.5 % (1)	17.2 % (5)	10.5 % (8)
OFFICE EDUCATION	0.0 % (0)	16.6 % (3)	10.3 % (3)	7.8 % (6)
LAW ENFORCEMENT	10.3 % (3)	16.6 % (3)	10.3 % (3)	11.8 % (9)
BUILDING TRADES	3.4 % (1)	16.6 % (3)	6.8 % (2)	7.8 % ( )
AGRI-BUSINESS	6.8 % (2)	0.0 % (0)	6.8 % (2)	5.2 % ( )
RETAIL SALES	13.7 % (4)	5.5 % (1)	6.8 % (2)	9.2 % ( )
MACHINE OPERATORS	17.2 % (5)	0.0 % (0)	10.3 % (3)	10.5 % ( )
TRUCK DRIVING	13.7 % (4)	0.0 % (0)	17.2 % (5)	11.8 % (9)
OTHER	13.7 % (4)	11.1 % (2)	0.0 % (0)	7.8 % (6)

The following is a ranked list of "Other" responses made by students responding to the desire for exploration activities or preparatory learning experiences at the high school level. No attempt was made to blend categories. The occupational areas normally requiring formal baccalaureate degree preparation are marked with an asterisk.

190 - Teaching*
135 - Veterinary Science*
134 - Conservation*
118 - Art
95 - Interior Design
91 - Social Service*
80 - Computer Science
77 - Music*
70 - Stewardess
66 - Coaching*
64 - Beautician
64 - Photography
64 - Aviation
61 - Forestry*
60 - Journalism
59 - Animal Husbandry
52 - Law*
48 - Accounting*
44 - Professional Sports
41 - P.E. (teaching)*
40 - Medicine*
37 - Radio & T.V.
35 - Nursing
34 - Commercial Art
32 - Acting
31 - Architecture*
31 - Psychology*
29 - Home Ec
29 - Religion
29 - Child Care
27 - Modeling
25 - Creative Writing
24 - Dentistry*
24 - Music Education*
22 - Fashion Design
19 - Drafting
18 - Special Ed*
18 - Business
17 - Engineering*
17 - Welding
15 - Auto Body Repair
14 - Entertainment
13 - Aeronautics*
12 - Cooking
12 - Cosmetology
12 - Game Warden
12 - Marine Biology*
11 - Astronomy*
11 - Dancine
11 - Food Service
11 - Oceanography*
11 - Recreational Leadership
10 - Archeology*
10 - Physical Therapy
9 - Floral Design
9 - Horticulture
9 - Horse Breeding/Training
9 - Lab Technician
9 - Pharmacy*
9 - Political Science*
9 - Restaurant Management
8 - Art Education*
8 - Real Estate
8 - Wildlife
7 - Child Psychology
7 - Counseling
7 - Space Exploration
7 - Stock Broker
7 - Heavy Equipment Operation
6 - Biological Science*
6 - Crafts
6 - Mortuary Science
6 - Linguistics*
5 - Advertising
5 - Auto Racing
5 - Banking
5 - Bartending
5 - Communications
5 - Court Reporter
5 - Diving
5 - Landscaping
5 - Psychiatry*
5 - Public Relations
5 - Translator
5 - Speech*
4 - Dietician*

4 - Librarian*
4 - Lifeguard
4 - Research
4 - Travel Agent
3 - Aerodynamics*
3 - Air Control
3 - Anthropology
3 - Auctioneering
3 - Insurance
3 - Mountain Climbing
3 - Nuclear Physics*
3 - Optometry*
3 - Printing
3 - Railroading
3 - Riflery
3 - Salesman
3 - Upholstery
3 - X-ray Technician
2 - Biochemistry*
2 - Chemistry*
2 - Fire Science
2 - Hotel-Motel Management
2 - Locksmith
2 - Meat Packing
2 - Meteorology*
2 - Plumbing
2 - Radiology
2 - Referee
2 - Sound Engineering*
2 - Speech Therapy
2 - Tutoring

1 - Antique Dealer
1 - Aquatics
1 - Auto Parts Specialist
1 - Bacteriology*
1 - Bricklayer
1 - Carpet Layer
1 - Clown
1 - Command
1 - Diesel Mechanics
1 - Exploratory Science.
1 - Fur Raiser
1 - Industrial Marketing
1 - Ichthology*
1 - Jockey
1 - Logging
1 - Occupational Therapy*
1 - Paleontology*
1 - Postal Work
1 - Private Investigator
1 - Probation Officer
1 - Ranching
1 - Respiratory Therapy
1 - Statistician*
1 - Space Administration
1 - Surveying
1 - Tailoring
1 - Taxidermy
1 - Telephone Operator
1 - Tour Guide
1 - Trapper
1 - Well Drilling



Des Moines Area Community College
2006 Ankeny Blvd.
Ankeny, Iowa 50021

Dear School Administrator:

The Des Moines Area Community College, in cooperation with the Department of Public Instruction, is conducting a planning study to attempt to set directions for integrating career education programs throughout the college district. To do this effectively, we need input from you as a school administrator. Would you please spend a few minutes reacting to the brief questionaire below? Please be frank in your responses.

Thank you.

* * * * * * * * * * * * * * * * * * *

1. Present community college efforts within your school area may include such activities as career exploration and assessment, coordination of adult education, and other similar activities. WITHIN THE FRAMEWORK OF A COOPERATIVE VENTURE, WHAT SERVICE FUNCTIONS CAN THE COLLEGE DO FOR YOUR SCHOOL SYSTEM?

2. WHAT NEW DIRECTIONS MIGHT THE COLLEGE PURSUE TO BETTER MEET THE EDUCATIONAL NEEDS OF SOUTH-CENTRAL AND WEST-CENTRAL IOWA?

Thank you for your assistance. Please insert in the return envelope and mail by February 14, 1975.

Ron McClurg
Research Analyst

MOBILE CAREER EXPLORATION CENTER PROJECT

PROJECT TITLE: Community College and Local Rural Secondary Schools Cooperative Career Assessment and Exploration Program

INSTITUTION: Des Moines Area Community College, Ankeny, Iowa

OBJECTIVES:

1. To create a coordinated, upper career education project that would not develop new models, but would implement and test those which have been done previously.

2. To provide many students from small rural schools who've not had career educational experiences, career exploration and assessment.

3. To feature a close liaison between the community college and secondary school systems of the district that will result in provision of new educational services, thus, enhancing students' opportunities to obtain sound, consistent career education.

4. To incorporate elements of previous vocational or career education projects and implement an action program in career assessment and career exploration.

5. To establish a model for evaluating secondary career education assessment and exploration activities.

6. To obtain concrete statistical information about the students in the project.

PROCEDURES:

1. Four demonstration centers will be selected at points within the college district that are geographically distant from the college campus.

2. The project staff will operate the centers for a period of approximately 8 weeks per site.

3. Schools will notify students that the center is to be set up and will select the participants.

4. The project counselor will meet with all participants in large group orientation session, and will administer the Ohio Vocational Interest Survey. The O.V.I.S. will not be administered if other interest testing records are on file for the students.

5. Students will have a personal interview with the project counselor to examine what, if any, educational plans may have already been made.

6. Students will be involved at least one "period" per day for most of the eight weeks, if they are to fully explore a maximum number of occupations.

7. Exploring of vocations will be by a "hands-on" approach. Students will explore jobs by following self-instructional (individual learning) packages. They will use materials and equipment that are actually utilized on the job.

8. Exploration activities will be available in the three major categories of Industrial-Mechanical, Science-Oriented, and Business Occupations.

9. A final interview by the project counselor will help the student "put it all together". By the end of their exploration involvement, students should have narrowed their occupational choices to one, or two, and they will understand procedures and requirements for entering training or employment.

INNOVATIVE FEATURES:

1. Will provide for a full integration of services between high schools and the college.

2. Provides for students to move at individual rates into career choices. For example: a student would be exposed to occupational information, followed by career assessment, orientation to the world of work, pre-career exploration, high school career education, and finally, post-secondary preparatory career education.

3. Utilize full synchronization of career experiences from the local educational system to the community college.

4. Provision of transportable assessment, and exploration to rural districts.

EVALUATION

The evaluation component of this project will be that of comparing project participants with a control group of non-participants at a selected point in time following their school graduation.

The control group shall be selected on the same basis as the experimental group for each school. (Some schools will recommend those who should participate. Those who have scheduling problems or similar participation prevention situations shall be designated as Control. Other schools may ask for volunteer participants. Those who cannot be serve due to numbers shall be designated as Control, etc.)

Students are expected to follow one of two alternatives upon graduation, either enter employment, or further their education.

1. For those entering employment, analysis will be made of (a) the correlation of job selection with the assessment process, and (b) job turn-over in six months.

2. For those furthering education, analysis will be made of

   (a) Selection of post-secondary training as compared with assessment recommendations

   (b) Curricular changes in six months

   (c) Achievement

   (d) Term Completion

FUTURE NEEDS FOR MOBILE EXPLORATION CENTER ACTIVITIES:

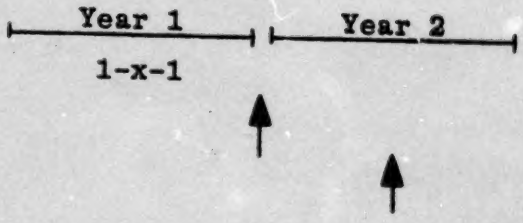
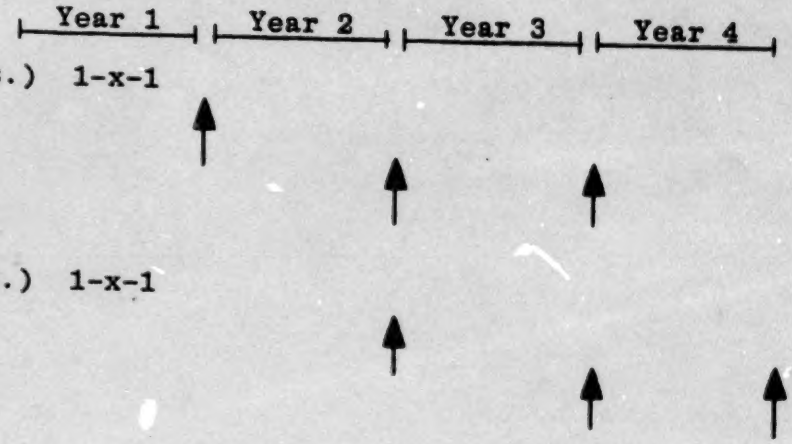
The need to convert this project into an on going, longitudinal program is obvious. In the first sense, the project includes a longitudinal follow-up format as a basis for project evaluation. Minimal time frame constraints indicate a six-month follow-up after student graduation to evaluate job selection correlation and job turn over. Twelve to twenty-four months would be much more adequate.

On the other hand, the project is following participants of further education intent, with evaluation criteria of curriculum change rates, achievement, and term completion rates, and three of those six months are consumed by "summer vacation". A minimum of two years would be required to fully follow the career education student on a longitudinal study.

The second major limitation of this project, as designed, is that due to evaluative criteria requirements, normally only school seniors are encouraged to use the exploration and assessment center project. Yet, the school counselors are promoting involvement of younger students.

This project has merit for extended longitudinal operations. To extend its activity would permit extended follow-up involvement with the participants as well as opportunity for exposure to career assessment and exploration activities earlier in students' school experiences.

Current Format



Preferred Format